



Montgomery County Maryland Fire and Rescue Services

Accreditation

Community Risk Assessment: Standards of Cover Version 3 / Third Accreditation Cycle 2013-2018



Commission on
Fire Accreditation
International

100 Edison Park Drive, Gaithersburg, MD 20878

**MCFRS
STANDARDS OF COVER**

Montgomery County Fire and Rescue Services

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Document Change History Table

The table below contains a historical catalog of the history of this document.

Description of Change	Author	Revision No.	Covering Timeframe	Date
Initial Release	MCFRS	1	2007-2012	4/22/2007
Reaccreditation	MCFRS	2	2012-2013	May 2013
Revised to 6 th ed. CRA:SOC & 9 th ed. FESSAM manuals	MCFRS	3	2013-2018	Feb. 2018

Significant updates between Revision No. 2 and Revision No. 3 include:

- Eliminated endnote reference internet hyperlinks, and directly hyperlinked references throughout the manual.
- Many references are now saved as PDF files then hyperlinked and stored on a Montgomery County Government web storage content management system folder. This will alleviate future issues with references pointing to depreciated websites.
- Updated financial section to include FY17 operating and FY15-20 CIP budget numbers.
- Updated County climatic data.
- Updated population numbers based on U.S. Census FactFinder estimates.
- Updated County population level of education statistics.
- Offered more granular demographic numbers.
- Updated County-based largest public and private sector employers and County labor force numbers.
- Updated long-term nursing home data.
- Updated some of the maps with more recent versions.
- Reformatted SOC to follow Category II of the FESSAM.
- Added CFAI First Arriving Unit and Effective Response Force (ERF) data tables for each component of the total response time continuum for each of the MCFRS' 21 emergency service programs by risk level.
- Removed each fire station risk map for each of the program risks and, where appropriate, documented the programmatic risks as defined by the updated 2017 Community Risk Assessment.
- Provided Fire Station Upper Tier Risk Manager Zone (Station Response Area) service demand call load graphing/trending between Fiscal Years (FY) 13 – 17 within the Fire Station descriptions section.

MCFRS

COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

TABLE OF CONTENTS

I. Introduction.....	6
II. Executive Summary	7
III. Organizational Doctrine: Vision, Mission, Guiding Principles/Values [1A.10]	9
Goals and Objectives [CC 3B.1].....	10
IV. Legal Establishment of MCFRS and Legislative Milestones [CC 1A.1]	13
V. Documentation of Montgomery County Area Characteristics [2A]	17
Brief History of Montgomery County, Maryland.....	17
MCFRS Service Boundaries [2A.1] Including Topography	20
MCFRS Automatic Aid Boundaries and Service Responsibilities [2A.2]	22
Methods for Organizing Response Areas into Geographical Planning Zones [CC 2A.3]	
Community Assessment & Population Density by Risk Management Zones [CC 2A.4]....	29
Positive and Negative Service Delivery Outcomes Methodology and Analysis [2A.5]	46
Event Consequence and Loss Data [2B.3].....	46
Station Response/Risk Management Zone Response Area Characteristics [2A.6]	53
Station Response/Risk Management Zone Socioeconomic/Demographic Features [2A.7].	58
MCFRS Community Safety and Remediation Programs [2A.8].....	64
Critical Infrastructure Supporting Emergency Response within RMZs [2A.9]	69
VI. Description of MCFRS Programs and Services	74
VII. MCFRS All-Hazard Risk Assessment and Response Strategies [Criterion 2B]	84
MCFRS Methodology: Identifying, Assessing, Categorizing, Classifying Risks[CC 2B.1]	85
Historical and Future Probability of Service Demands by RMZ [2B.2]	94
RMZ Risk Identification, Analysis, Categorization & Classification Methods [CC 2B.4]..	97
Fire Protection & Detection Systems Incorporated into MCFRS Risk Analysis [2B.5]	121
Assessment: Critical Infrastructure in RMZs for Capabilities in Meeting Risks [2B.6]	124
VIII. MCFRS Current Deployment and Performance [Criterion 2C]	127
MCFRS Methodology: Consistent Provision of Service Levels in all Programs[CC 2C.1]	
.....	128
Methodology for Monitoring Quality of Emergency Response Performance [CC 2C.2] ..	134
Fire Protection/Detection Systems Considered Within Response Strategies [2C.3]	148
Programmatic Critical Task Analysis by Risk Class for 1 st Due & ERF [CC 2C.4]	151
MCFRS Critical Task Analysis Worksheets.....	156
Service Delivery Total Response Time Continuum and Related Components [CC 2C.5]	193
Determination if Response Time Performance Objectives Met [CC 2C.5].....	258
Service Delivery Total Response Time Continuum Assessment by RMZs [2C.6]	264
MCFRS Processes to Maintain & Improve Service Delivery Performance [CC 2C.7]	271
MCFRS' Emergency Response System Resiliency Doctrines [2C.8].....	273
IX. MCFRS Plan to Maintain & Improve Response Capabilities [Criterion 2D]	276
Methods for Assessing Performance and Opportunities for Improvement [CC 2D.1].....	277
Quarterly Monitoring, Assessing, Reporting Delivery Outcomes & Actions [2D.2]	284

MCFRS

COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Monitoring Future Influencing Factors Which Could Affect Service Delivery [CC 2D.3]	288
Performance Monitoring Supports MCFRS Annual Assessment of Programs [2D.4]	291
Programmatic Incident Mitigation Efforts are Assessed for Effectiveness [2D.5]	296
Performance Gaps (Negative Trending etc.) Determined at Least Annually [CC 2D.6] ...	300
MCFRS Continuous Improvement Plan to Address Gaps and Inadequacies [CC 2D.7] ...	301
Notification to AHJ of Significant Operational Gaps Affecting Mitigation Efforts [2D.8]	302
AHJ Notification: Gaps bet. Current Capabilities & Approved Service Levels [2D.9]	304
Interactions: External Stakeholders & AHJ: Determine Program Expectations [2D.10] ...	306
Historical Significant Incidents.....	308
Service Milestones	310
Financial Basis	314
Fire-Rescue Planning	319
Special Studies	322
Population	324
Employment	329
Medical Care	330
Elderly Residential Communities and Long-Term Care Nursing Homes	331
Planned Communities	332
ISO Rating	334
Countywide Service Demand/Work Load Charts and Graphs	335
Fire Station Descriptions and Multi-Year Incident Counts and Trending Analysis	339

MCFRS

COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

I. Introduction

This Montgomery County, Maryland, Fire Rescue Service (MCFRS) Community Risk Assessment / Standards of Cover (CRA/SOC) document is significantly updated from the 2013 version when MCFRS achieved accreditation status (the second time) through the Commission on Fire Accreditation International (CFAI).

Like the first CRA/SOC produced leading to the 2007 CFAI first-time accredited fire department agency status, and the second CRA/SOC leading to reaccreditation in 2013, MCFRS has again prided itself on conducting an agency-wide self-assessment and writing its own CRA/SOC manual.

However, unlike the second version in 2013, this CRA/SOC manual was formatted using the framework provided in the Center for Public Safety Excellence's (CPSE) reimagined 9th Edition Fire and Emergency Services Self- Assessment Manual (FESSAM) and 6th Edition of the Community Risk Assessment: Standards of Cover manual.

MCFRS has strived to maintain transparency with the release of this CRA/SOC and will continue to use monitor, evaluate, and modify the information contained within, as well as share the information with our community. MCFRS will use this manual to help guide emergency service delivery and community risk reduction planning efforts and program evaluations and reassessments.

Finally, while hard-copy readers of this CRA/SOC will glean much information into MCFRS methodologies, processes, and service delivery performance, goals and objectives, the online reader will be provided much additional information via internet hyperlinks. Online viewers are highly encouraged to link to much additional information to support the efforts within this manual, which help document MCFRS' commitment to continuous organizational improvement while always striving for public safety agency excellence.

MCFRS

COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

II. Executive Summary

The Montgomery County Fire and Rescue Service (MCFRS) is an “all hazard” department protecting Montgomery County, Maryland. The County is comprised of over 1,000,000 residents distributed over 491 square miles of land area and is located north of Washington, D.C. Residents have come to the County from just about every corner of the globe and live in a mosaic of dense urban areas, suburbs, and farmlands. This diversity of population and density creates a multitude of response challenges for MCFRS. The department has risen to these challenges and readily provides emergency medical, fire suppression, heavy rescue, technical rescue, arson and explosive investigations, and hazardous materials mitigation services. MCFRS seeks to prevent the 911 call with an active Volunteer and Community Services Division focusing on community risk reduction, outreach, and public education.

MCFRS is committed to self-review, analysis, and improvement to maintain and enhance the services its community expects. This process includes Master and Strategic Plan development and implementation, Headline Performance Measures analysis and reporting, and remaining accredited through the Commission on Fire Accreditation International (CFAI).

In an effort to maintain the accreditation status earned in 2007 and improve upon self-assessment efforts, MCFRS has initiated a complete review and refresh of Version No. 2 of the Standards of Cover (SOC) submitted during the 2013 reaccreditation endeavor. MCFRS now submits for review its third-version Standards of Cover document which again has been developed in-house and conforms to the CFAI Community Risk Assessment: Standards of Cover (CRA/SOC) manual, 6th edition, and 9th edition of the Fire and Emergency Services Self-Assessment manual (FESSAM). This third iteration of the MCFRS CRA/SOC continues to fully define in detail every aspect of this metropolitan fire department, including services currently provided, community expectations and how they are being met, performance measurements, strategic goals, and a detailed description of the diverse community served.

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Within this document, the many strengths of the department have been outlined as well as areas of improvement. This analysis continues to be utilized by MCFRS in its never-ending drive to achieve organizational excellence and provide the best services to its community.

MCFRS

COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

III. Organizational Doctrine: Vision, Mission, Guiding Principles/Values [1A.10]

The MCFRS organizational doctrine consists of our vision, mission, guiding principles/values, and goals and objectives which collectively guide and facilitate the delivery of services to our customers—County residents and businesses as well as visitors to our County.

Vision



The Montgomery County Fire and Rescue Service’s vision is to enhance public safety and support quality of life through direct immersion in our communities, effectively blending outreach and education, and by leveraging our career and volunteer workforce to deliver exceptional services and improve our resiliency to meet increased challenges.

Mission

The Mission of the Montgomery County Fire and Rescue Service is to provide maximum protection of lives, property and the environment with comprehensive risk reduction programs and safe and effective emergency response provided by highly skilled career and volunteer service providers representing the County’s diverse population.

Guiding Principles/Values

Our Montgomery County Fire and Rescue Service providers will:

- Deliver services to our customers with impartiality and excellence
- Promote the highest standards of safety and welfare
- Serve with integrity and mutual respect
- Promote the efficient and effective utilization of our resources
- Ensure that all organizations and personnel comprising the Fire and Rescue Service share the responsibility for continuously improving their capabilities, effectiveness, and efficiency

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

- Be responsible for the honor of our profession and public service
- Recognize the importance of diversity of our workforce and communities
- Promote equity and harmony among career and volunteer personnel
- Maintain and promote open, honest communication, creativity, and competence
- Continuously improve public confidence and trust
- Be accountable and ethical

Goals and Objectives [CC 3B.1]

MCFRS has established a general, overarching goal as well as a set of broad departmental goals to guide the Fire and Rescue Service. Goals and objectives have also been established at the division/section level that address these departmental goals in greater detail. The following overarching and departmental goals are published in the MCFRS [2016 – 2022 Fire, Rescue, Emergency Medical Services and Community Risk Reduction Master Plan](#). The Master Plan also provides an Issues and Needs section (Section 5) and an Initiatives and Priorities section (Section 6) where specific goals are identified and prioritized to guide the agency in maintaining or achieving these goals. The highest priorities requiring initiation, continuation, or completion are then published in an annual MCFRS Strategic Plan and provide the focus and measurable elements of time, quantity, and quality.

Overarching Departmental Goal

To comprehensively plan for the future needs of the Montgomery County Fire and Rescue Service and its customers by addressing all aspects of MCFRS capabilities to deliver effective and efficient emergency and non-emergency services as well as capabilities to address the functional, developmental, wellness, and safety needs of the organization.

MCFRS

COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Departmental Goals

1. To maintain our operational readiness at all times for an all-hazards mission and response capability, including emergency medical services, fire suppression, technical rescue, water/ice rescue, aviation fire-rescue, hazardous material, and explosive device emergency services.
2. To minimize the number of deaths and number/severity of injuries to our customers through a comprehensive, all-hazards, risk reduction strategy implemented through our community outreach program.
3. To ensure that sufficient numbers of personnel, apparatus, equipment, and facilities are in place to effectively and efficiently deliver emergency services and achieve our adopted standards of response coverage.
4. To set a desirable and attainable course for the future through strategic planning and with the establishment and periodic updating of “SMART8” goals and objectives.
5. To reassess and refine our vision, mission, and guiding principles periodically.
6. To maximize the utilization of our career and volunteer resources to achieve our mission.
7. To deploy and leverage our resources to best serve our customers’ needs while maximizing our effectiveness, efficiency and fiscal responsibility.
8. To ensure the transparency of our business operations and that open lines of communication are maintained with our customers.
9. To create and maintain strong partnerships with the citizenry, businesses, organizations and institutions within Montgomery County so that we may improve our responsiveness to their needs/concerns and leverage their collective capabilities to assist us in our community risk reduction, injury prevention and property protection efforts.
10. To seek and sustain tactical and strategic partnerships with other County, municipal, regional, State and federal agencies and private sector organizations to enhance our capabilities to prevent, respond to, and mitigate emergency incidents locally and regionally in keeping our homeland safe.
11. To maintain and grow our infrastructure, including facilities, apparatus, equipment,

MCFRS

COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

communications systems, and information technology systems to support our mission.

12. To provide for and enhance the wellness, safety, training, and development of our personnel, including implementation of risk reduction strategies to improve occupational safety and to improve the health and wellness of MCFRS personnel.

13. To ensure that MCFRS continuously recruits the career and volunteer personnel required to effectively deliver our services and programs and undertakes the steps needed to retain these individuals for long-term service to the community.

14. To address the current and projected training needs for career and volunteer leadership and workforce development. This includes classes provided at the Public Safety Training Academy, online training, in-service training, station drills, and classes provided by the Maryland Fire-Rescue Institute.

15. To ensure MCFRS embraces diversity, that our membership is reflective of the community served, and that our environment is open and accepting to all members of the community.

16. To establish an organizational commitment to evaluate, develop, and implement new technologies and innovations on a continuous basis that will enhance the effective delivery of services and performance of business processes.

17. To evaluate our progress, measure our performance, and strive for continual improvement through accreditation, performance measurement, dashboard monitoring, and program appraisal.

MCFRS

COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

IV. Legal Establishment of MCFRS and Legislative Milestones [CC 1A.1]

The Montgomery County Fire & Rescue Service (MCFRS) has evolved from a loosely knit confederation of locally based volunteer fire-rescue departments to become a single countywide entity that is an integral part of the County government. Over the years, this progression had been marked by occasional strife and disagreements between the various stakeholders. This strife has been responsible for the generation of much of the present legal framework for the MCFRS.

The Charter of Montgomery County is the “constitution” of the County and outlines the functions of the Legislative and Executive branches of the government, and the Montgomery County Code encompasses all of the County regulations and laws. The original Code was adopted in 1948. The current Code of Maryland County Regulations (COMCOR) was adopted in November 1968, with amendments made throughout the succeeding years.

Chapters 2, 21, and 22 are the three chapters out of over 70 that regulate the County fire department and code enforcement as it pertains to fire safety and hazardous materials.

[Chapter 2, Section 02.39A](#) establishes the structure of the Fire-Rescue system, which includes the roles of the Fire and Rescue Commission [later renamed Fire and Emergency Services Commission], the County Fire-Rescue Service, and the Local Fire and Rescue Departments.

[Chapter 21 of the County Code](#) is the legal framework of the fire department. It sets the minimum standards and regulations for the operation of the Fire & Rescue Service.

[Chapter 22](#) defines all of the Montgomery County fire safety code regulations including:

- Hazardous Materials permits
- Fire Protection equipment
- Permitting and licenses
- Building and fire codes

MCFRS

COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

- Fire Department accesses and water supply
- Code enforcement and fire department fees

While the County Code Chapters 2, 21 and 22 define and regulate the department, there are also numerous legislative bills, laws and referenda that have shaped MCFRS into its present form:

- 1949** Division of Fire Protection was created by the County Council in the first attempt to administer and centralize the laws and enforce fire codes. It also established the Fire Investigations and Arson Unit [known now as the Fire & Explosives Investigations Section].
- 1967** Bill 1 – Created by the County Government to have one Fire Chief to oversee the 15 independent fire corporations; provided control of County funds.
- 1968** Referendum to repeal Bill 1 – the 15 fire corporations banded together to repeal this bill to remain autonomous – passed, Bill 1 repealed.
- 1968** Chapter 21 created - section of the County Code that regulates the Montgomery County Fire Department.
- 1972** Bill 25-72 – Created Department of Fire Rescue Services (DFRS) and created a Director as the head of Fire-Rescue for the first time.
The bill centralized and coordinated:
- Fire Rescue Operations
 - Communications
 - Training
 - Fire Prevention
- 1976** Montgomery County is the first county in U.S. to [mandate smoke detectors](#) in not only new but existing residential structures, by law.
- 1979** Bill 16-79 – Created Uniformed Command Structure for all Volunteer and Career Employees in DFRS.
- 1986** FLSA Law Suit – Norman Conway, Inc. et al v Takoma Park Volunteer Fire Department. At the time, all paid fire fighters were employees of the individual corporations; this lawsuit resulted in the Bill 42-87
- 1987** Bill 42-87 - As a result of the FLSA lawsuit, all paid uniformed employees were transferred from the private corporations to become County merit system employees.

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

- 1988** Legislation to mandate sprinklers in townhouses.
- 1994** County Code Section 510A – Allows collective bargaining and binding arbitration for the County Fire Fighters – enacted 11/8/94.
- 1996** Question E – An attempt by referendum to get a single County Fire Chief, which was defeated.
- 1997** Bill 37-97:
- Department of Fire Rescue becomes the Division of Fire-Rescue
 - Created a Fire Administrator
 - Restructured Chapter 21 of the Montgomery County Code and created a uniform set of rules that apply to all elements of the fire and rescue system, including career Service employees and local department volunteers.
 - Amended Chapters 2 and 21 of the Montgomery County Code to reorganize the administration and delivery of fire and rescue services in Montgomery County.
- 2003** [Bill 36-03](#) Creates a Uniformed County Fire Chief:
- Full operational authority over the fire rescue service, paid and volunteer personnel
 - Full authority over the fire-rescue budget
 - Became law 1/1/05
- 2010** Question A – referendum to allow for billing for ambulance transports for all EMS service provided in Montgomery County, which was defeated.
- 2012** [Expedited Bill 17-12](#) authorized County to impose and collect a reimbursement to recover costs generated by providing EMS transports – enacted 5/15/12; effective 1/1/13.
- 2016** [Expedited Bill 29-16](#) transfers Fire Prevention and Code Compliance Section from MCFRS to the Department of Permitting Services to realize the efficiencies of costs and staffing – enacted 9/20/16; effective 9/28/16.

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

National Fire Protection Association (NFPA) Consensus Standards

In addition to the laws and standards that impact MCFRS in a broad sense, there are other laws and codes that pertain to specific MCFRS functional areas such as fire code enforcement (e.g., Montgomery County Fire Safety Code, Code of Maryland Regulations, Annotated Code of Maryland, and NFPA codes that have been adopted by the County, etc.). [NFPA Standard 1710](#), the *Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments*, for example, while not legally binding in Montgomery County because it has not been adopted by the County Council into County Code, is a voluntary national standard to which the MCFRS has chosen to follow to the greatest extent possible, as many fire departments across the nation have adopted its provisions or have likewise chosen to follow them to the greatest extent possible.

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

V. Documentation of Montgomery County Area Characteristics [2A]

Brief History of Montgomery County, Maryland

The land that makes up Montgomery County, Maryland today was first settled in the early 1600's. Montgomery County was formed into a county in September 1776, and was named after Richard Montgomery. Montgomery was a British Officer who became a Brigadier General in the Colonial Army, although he never set foot in Maryland. In December 1791, the Maryland General assembly ceded 36 square miles of southern Montgomery County to the Federal Government. That land today is what makes up part of the District of Columbia.

The following excerpts are quoted from the January 2010 Montgomery County Office of Public Information document titled [Montgomery County Maryland Our History and Government](#).

It was more than 300 years ago when the first European settlers arrived in what is now Montgomery County, an area stretching from the mouth of Rock Creek in the south to the Monocacy River in the north, the Potomac River on the west and the Patuxent River on the east. They found evidence of occupation by Indians of the Piscataway Confederation. It was a beautiful forested area rich in game that included deer, buffalo, bear and wild turkey, with rivers and streams teeming with fish. Captain John Smith of Virginia explored the Potomac River in 1608 and was the first European to map the area.

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Principle Historic Events

- 1776 – 1948: Montgomery County governed under the County Commissioner system.
- 1777: County seat established at the town of Williamsburg, site of present City of Rockville.
- 1791: Georgetown, then a part of Montgomery County, is ceded to the Federal government to form part of the new District of Columbia.
- 1828 – 1850: Decline in County agriculture, due to overproduction of tobacco, poor farming methods, and emigration of farm labor. Prosperity returned when Quakers in the Sandy Spring area introduced imported fertilizer and farm machinery.
- 1861 – 1865: During the Civil War, both Union and Confederate troops passed through the County several times.
- 1948: Home rule charter adopted, allowing for a Council-form of county government. Montgomery was the first county in Maryland to establish a charter form of government.
- 1968: New charter adopted, allowing for an elected County Executive, and a seven-member elected County Council.
- 1970: First County Executive takes office under the new charter.
- 1990: Council expanded from seven to nine members.
- 1997: Unification of the City of Takoma Park into Montgomery County.

21st Century – Today

Montgomery County remains the most populous jurisdiction in the State of Maryland. The County boasts one of the country's most educated workforces, leading the nation with the highest percentage of residents who hold advanced degrees. Research institutes – including Johns Hopkins University's Montgomery County Campus, Howard Hughes Medical Institute, the National Institutes of Health and the University of Maryland – have campuses in Montgomery County.

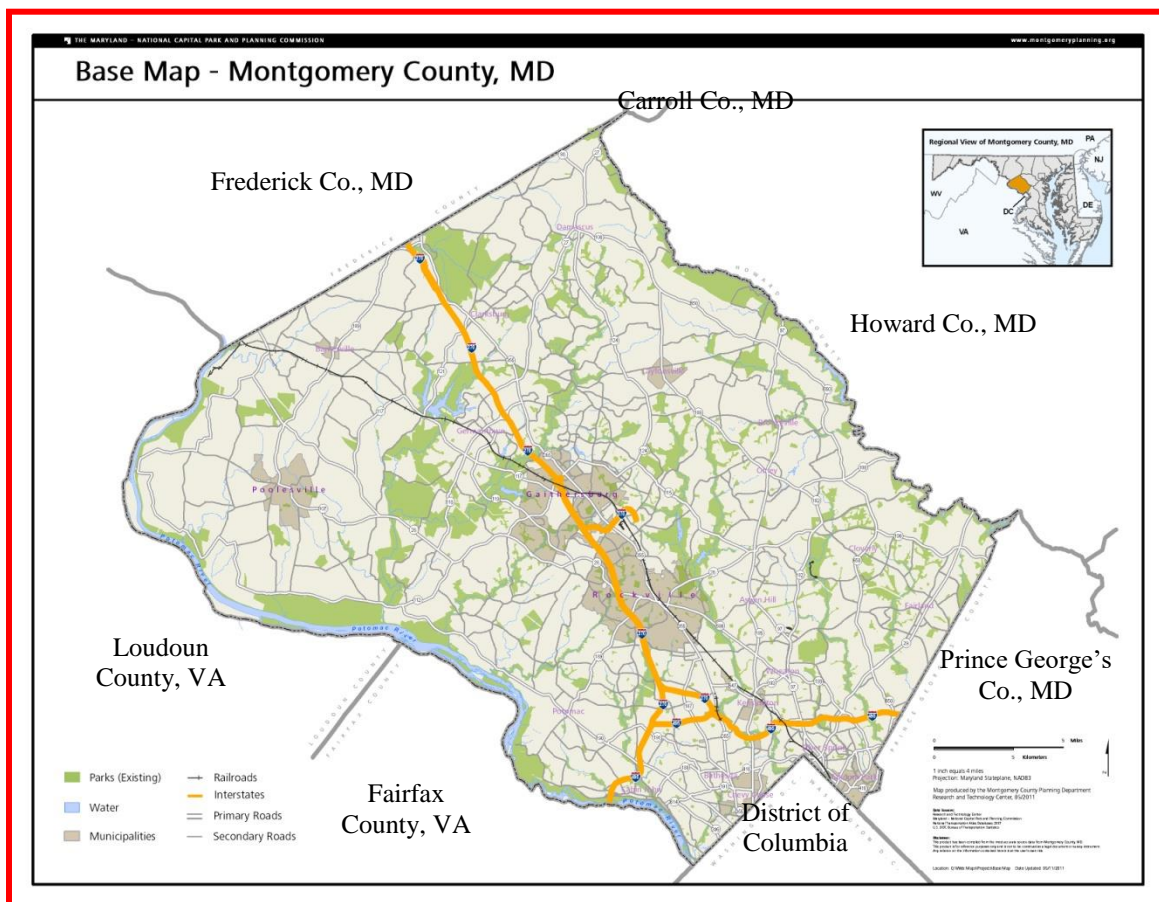
MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Located at the epicenter of the Mid-Atlantic's thriving federal and advanced technology marketplace, Montgomery County is home to more than 200 biotech companies – representing two-thirds of all those located in Maryland and the third largest cluster in the nation. With a hugely successful business incubator network, a nationally-renowned 93,000-acre agricultural preserve, an award-winning Small Business Mentorship Program, and world-class conference and performing arts facilities, Montgomery County is in an ideal location for both large and small businesses.

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

MCFRS Service Boundaries [2A.1] Including Topography

Montgomery County is the 5th largest land-mass county in the state of Maryland and the most populous. The County is positioned in the southern portion of central Maryland and is bordered by the Potomac River to the West, Frederick County to the North, Howard and Prince Georges Counties to the East and Washington DC to the South. The County consists of [491.25 square miles of land area and 15.69 square miles of water area](#).



The highest point of elevation in Montgomery County is in the north-eastern tip of the County at 880 feet above sea level. The lowest point is 10 feet above sea level at the bank of the Potomac River at Little Falls. Montgomery County is a relatively flat land mass with no major high points or “mountains.” There are gentle rolling hills in the northern, rural portion of the County.

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

The Potomac River is the western border of the County and it, along with bordering parkland, draws many hikers, bikers, kayakers and tourists. The Patuxent River provides a significant portion of the County's eastern border and the Hawlings River traverses parts of the eastern sections of the County.

Running parallel to the Potomac River is the Chesapeake & Ohio (C&O) Canal National Historical Park and Trail. The canal is 184.5 miles long running from Georgetown in Washington, DC to Cumberland, Maryland. The canal is a national park and is popular with hikers and bikers. Approximately 36 miles of the C&O Canal run through Montgomery County.

Great Falls in Potomac, Maryland is a series of cascades and rapids over the course of two-thirds of a mile. The river drops 76 feet over this distance with no greater than a 20-foot drop in any one place.

While there are many smaller bodies of water in the County, there are three major reservoirs: the Tridelphia and Rocky Gorge Reservoirs, and Little Seneca Lake. The first two of these reservoirs are approximately 800 acres each. Both reservoirs span the Montgomery/Howard County line. They are both maintained as a source for drinking water for the metropolitan area by the Washington Suburban Sanitary Commission. As with the Potomac River, these bodies of water attract many outdoor enthusiasts, for paddling, bird watching, hiking and fishing. Little Seneca Lake is a 500-acre reservoir serving as the backup water supply for the County. All three reservoirs and adjoining parkland are used for recreational purposes.

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

MCFRS Automatic Aid Boundaries and Service Responsibilities [2A.2]

Montgomery County is part of the National Capital Region (NCR) and, more specifically, within the area of the Metropolitan Washington Council of Governments (MWCOG). During the mid-2000s, MWCOG helped facilitate a broad [mutual aid agreement](#) with state, local, and federal stakeholders within the NCR.

Subsequently, on April 18, 2006, the Montgomery County Council [adopted the approval](#) of the Mutual Aid Agreement between Federal, State, and local governments in the National Capital Region.

In addition to the NCR Mutual Aid Agreement (NCR-MAA), the MWCOG Fire Chiefs Committee maintains an approved [Fire and Rescue Mutual Aid Operations Plan \(MAOP\)](#). As stated within the Fire and Rescue MAOP:

“It is the intent of this Fire and Rescue MAOP to ensure the fullest cooperation among fire prevention and suppression and emergency medical services agencies in the National Capital Region. Such cooperation will ensure the maintenance of good order, public safety, and the protection of life, property and the environment within the region during a state of emergency or public service situation that requires fire and rescue assistance beyond the capacity of a single signatory jurisdiction or agency. It shall be the duty of each signatory jurisdiction and agency to ensure that individuals discharging functions and responsibilities on behalf of the jurisdiction or agency, whether requesting assistance under this Operations Plan or receiving and authorizing responses to such requests, have been properly delegated authority to do so by the chief operating officer or other authorized representative of the jurisdiction or agency specified in P.L. 108-458.”

“It is the intent of the Fire and Rescue MAOP to create and describe relationships and to provide general direction and guidance rather than specify the operations of responding agencies. Therefore, although all functions and responsibilities under this Operations Plan may be assigned to employees or units of multiple jurisdictions or agencies, it will remain the duty of the Incident Jurisdiction to coordinate the appropriate tasks required.”

MCFRS

COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

It is through the NCR-MAA, the Montgomery County Council adoption of the NCR-MAA, and the MAOP that MCFRS confidently participates in cross-jurisdictional automatic and mutual aid with NCR partners, who also reciprocate services within Montgomery County. These agreements are complimented by the long-term public safety relationships and collaborative efforts which greatly enhance public safety regardless of jurisdictional boundary lines. For MCFRS automatic aid arrangements, the closest appropriate emergency resource responds no matter what side of the County line they are located.

The following map depicts the National Capital Region inclusive of the jurisdictions participating with MWCOG and covered by the NCR-MAA and MAOP.



MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

District of Columbia: District of Columbia

Maryland : Bladensburg (*adjunct member*); City of Bowie; Charles County; College Park City; Frederick City; Frederick County; Gaithersburg City; Greenbelt; Montgomery County; Prince George's County; Rockville City; City of Takoma Park.

Virginia: Alexandria City; Arlington County; Fairfax City; Fairfax County; Falls Church City; Loudoun County; Manassas City; City of Manassas Park; Prince William County.

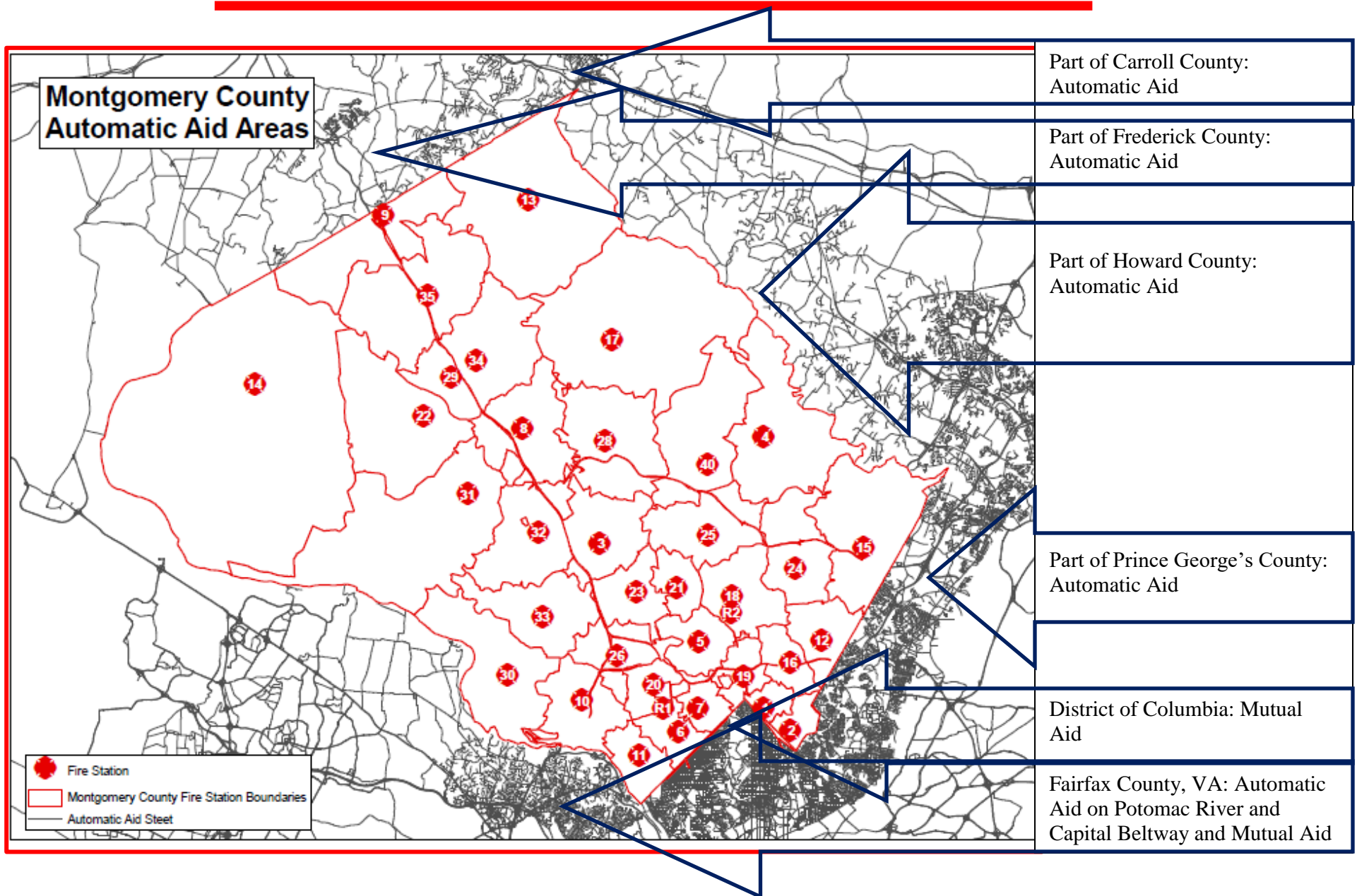
MCFRS also participates in automatic and mutual aid agreements with non-NCR partners; specifically, [Carroll County, Maryland](#) and [Howard County, Maryland](#) and [with Federal fire departments within the boundaries of Montgomery County](#). For these jurisdictions, MCFRS maintains individual written mutual aid agreements.



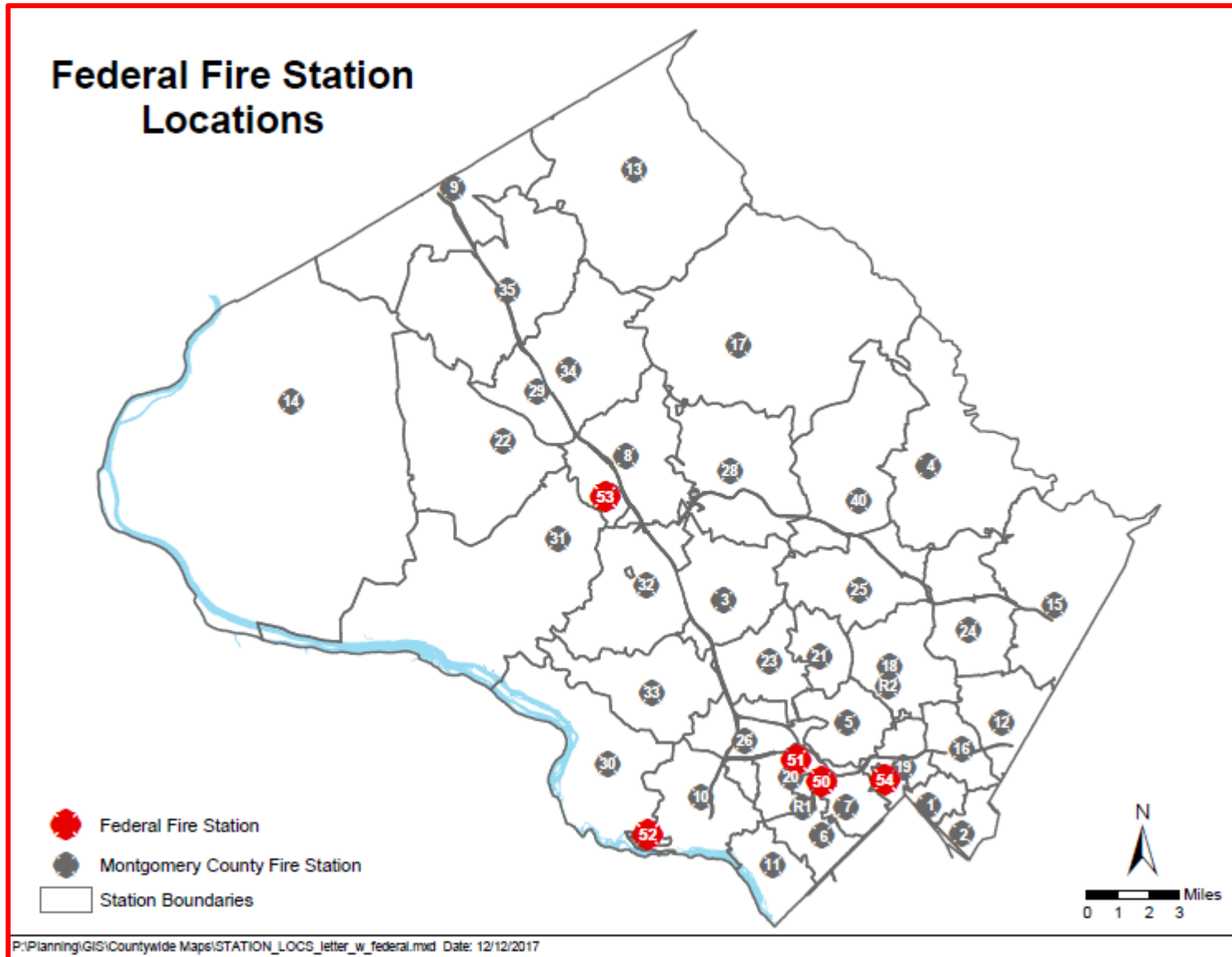
MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Whether it is automatic aid or specifically requested assistance through mutual aid, any MCFRS service requested is provided. Examples include fire suppression, EMS, hazmat, technical rescue, tactical communication support, mass casualty resources, including medical ambulance buses, strike teams, and task forces.

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER



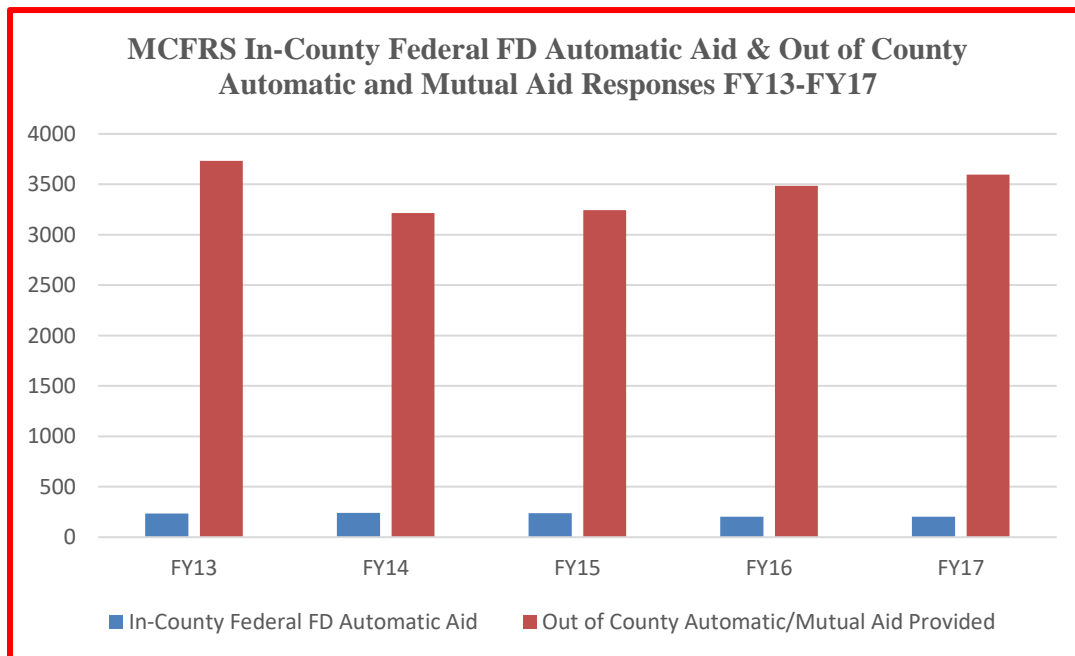
MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER



MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

MCFRS monitors the additional service demands that automatic and mutual aid places upon its emergency response deployment model. MCFRS understands the critical importance of maintaining automatic and mutual aid relationships and will continue to enhance automatic aid processes by introducing CAD-to-CAD technologies with automatic aid partners. CAD-to-CAD will expedite resource deployment and eventually leverage automatic vehicle locator (AVL)/Automatic Routing Logic (ARL) technologies.

Finally, the chart below depicts MCFRS automatic aid provided to in-County Federal fire-rescue departments and out-of-county automatic and mutual aid provided each fiscal year between FY13 to FY17. Over these five years, there is not a significant increase in automatic and mutual aid requests even though MCFRS' call load continues to increase ~3-5% per year.

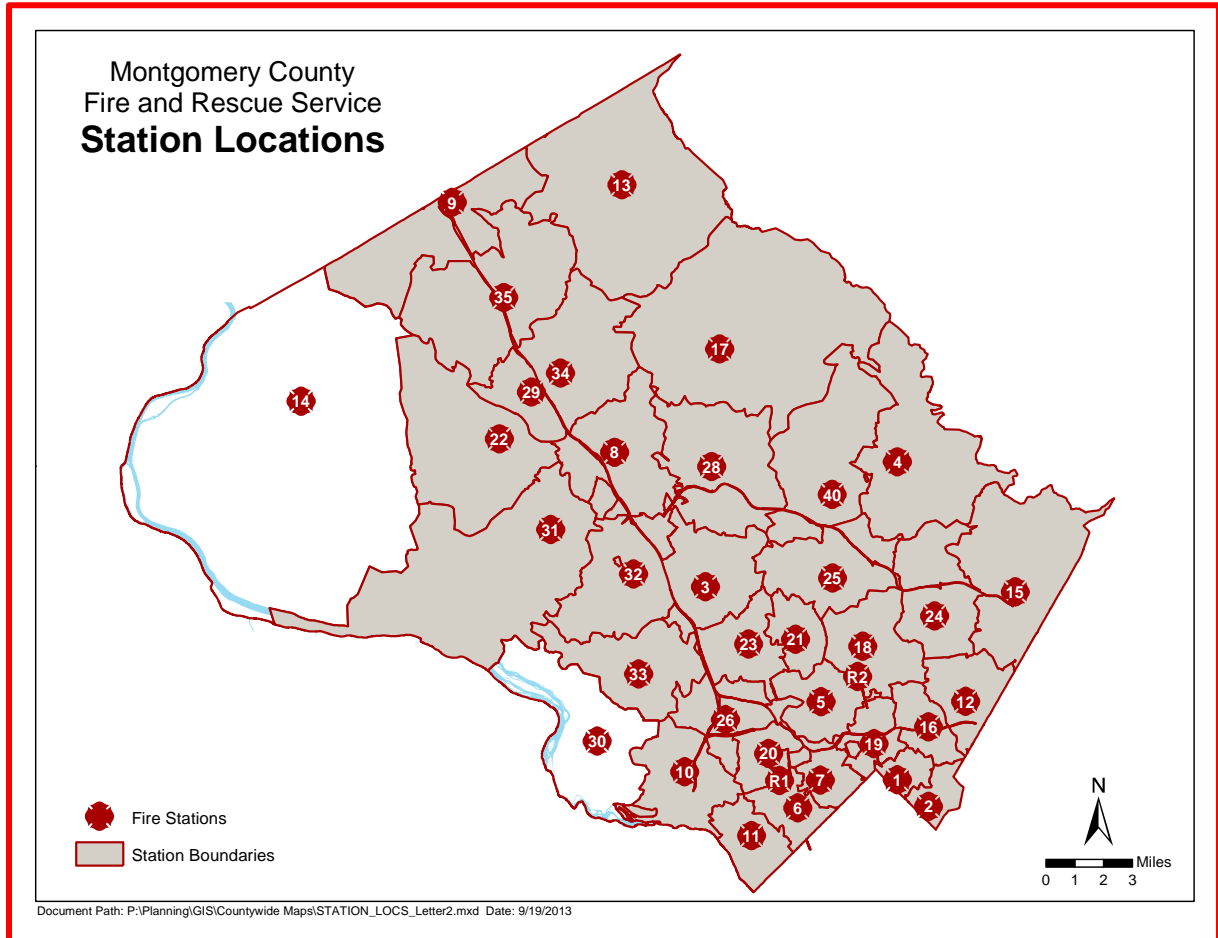


	FY13	FY14	FY15	FY16	FY17
In-County Federal FD Automatic Aid	234	242	239	203	204
Out of County Automatic/Mutual Aid Provided	3732	3216	3244	3486	3597

MCFRS

COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Methods for Organizing Response Areas into Geographical Planning Zones [CC 2A.3]
Community Assessment & Population Density by Risk Management Zones [CC 2A.4]

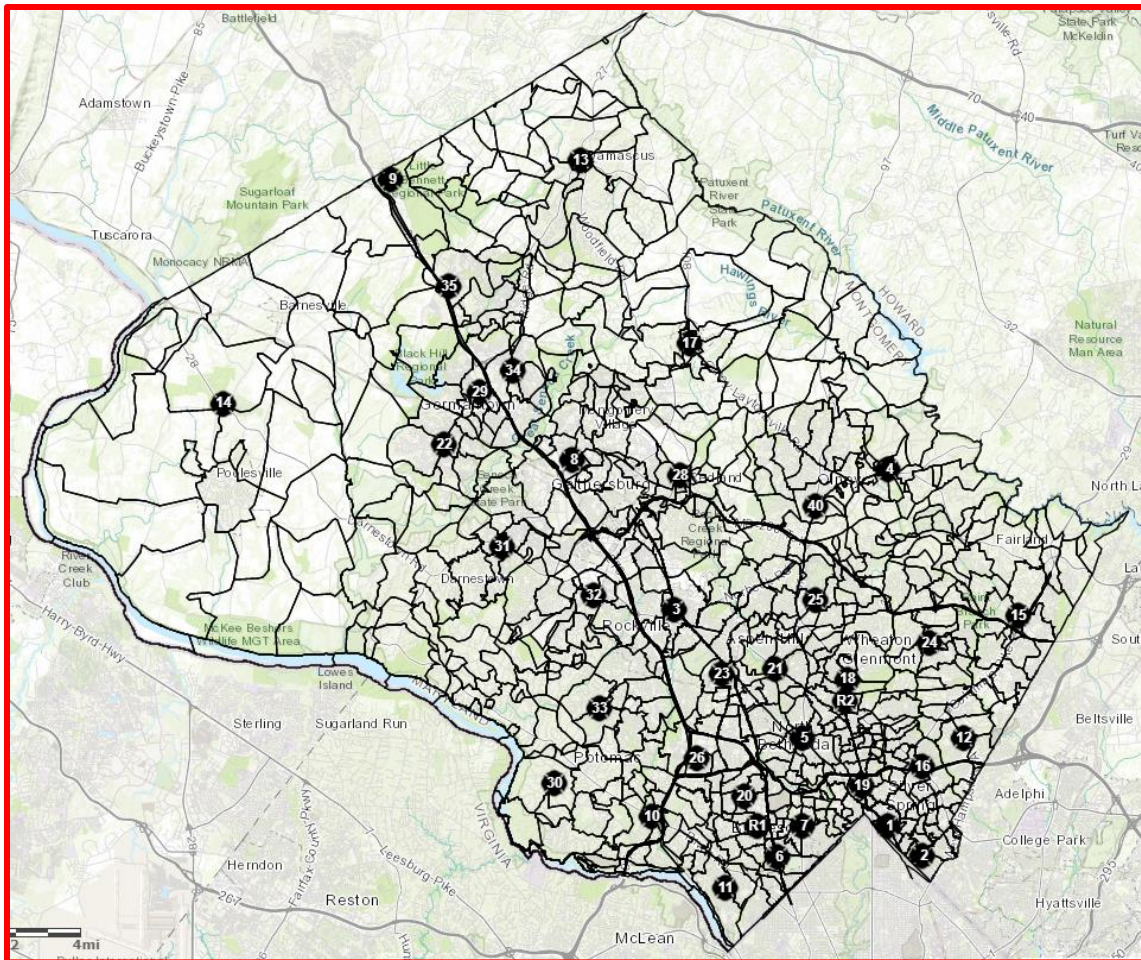


MCFRS bases its emergency response resources from 37 fire-rescue stations. Of these stations, 35 have at least one Class A pumper assigned and two rescue-only stations are dedicated with heavy rescue and EMS capabilities, but without engine company capabilities.

It is from the 35 first-due fire station response areas that MCFRS bases its upper tier geographical planning zones. These station response areas serve as the footprint for the distribution of resources for initial intervention within the communities served by those stations. These station response areas combined encompass the entire MCFRS response area.

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

MCFRS' geographic planning zone methodology also includes a lower tier and more granular approach to analyzing risks, service demands, workload, and operational and statistical reporting. This approach maintains 850 smaller geographic risk management zones (RMZ) spread throughout the entire response area. These RMZs are essentially the fire box areas within the fire station response areas.



This map depicts each of the 850 MCFRS Risk Management Zones (Box Areas)

MCFRS values and understands the importance of measuring its emergency response time programs' performance. It achieves this through constant quantitative evaluation of each component of the response time continuum by risk categories and within these established planning zones (i.e., Station Response Areas and Risk Management Zones).

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

MCFRS leverages geographic information system (GIS) technologies and sophisticated Crystal Reports algorithms to analyze risks, trending, workload, and performance to name a few. Each planning zone is represented as a polygon which allows for integration of multiple additional data layers using GIS. Every MCFRS call for service through the Emergency Communication Center (ECC) produces a geocoded address within the Computer-Aided Dispatch (CAD) system. Every address and incident are also linked to the MCFRS planning zones. All of this data is linked to timestamped response time data, and all of this “big data” gets exported into the MCFRS data warehouse and into the FireApp records management system (RMS). The RMS data is two-way back and forth into the data warehouse that MCFRS analysts are able to utilize for decisionmaker analysis and consumption.

In addition, MCFRS assesses many different features within its geographical planning zones, including population density. Since these planning zone boundaries do not align exactly with U.S. Census block boundaries, population densities are determined through a calculation based on a percentage of the census block that falls within the station and box areas (RMZ). The MCFRS GIS Specialist leverages GIS technologies to produce these assessments.

Finally, the following pages provide a table listing the population density per Fire Station Response Area planning zones and numerous tables listing the population density per RMZ planning zones. It is also important to note population density zones are designated Metropolitan (>3000 people per sq. mi.), Urban (2001-3000 people per sq. mi.), Suburban (1000-2000 people per sq. mi.), and Rural (<1000 people per sq. mi.) and are based on the Commission on Fire Accreditation International’s (CFAI) 8th edition Fire and Emergency Services Self-Assessment Manual (FESSAM) [page 71]. CFAI released the reimagined 9th edition FESSAM in mid-2015 and updated Community Risk Assessment/Standards of Cover (CRA-SOC) manual in 2016. Within the 6th edition CRA-SOC, on pages 11-12, population density zones were recommended to change to Urban and/or Rural. MCFRS has opted for now to continue using the 8th edition

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

FESSAM density zone designations due to the institutionalization of these terms and analysis systems within the AHJ and external and internal stakeholders.

Population Density per Fire Station Response Area Planning Zones (2010 Census)

Station Area	Sq.Mi.	Population	Population per sq. mi.	Pop. Density Zone
1	2.1	26823	12,773	Metropolitan
2	2.5	23740	9496	Metropolitan
3	14.3	50822	3554	Metropolitan
4	20.0	10720	536	Rural
5	6.0	30192	5032	Metropolitan
6	4.0	28944	7236	Metropolitan
7	3.6	13716	3810	Metropolitan
8	12.7	75489	5944	Metropolitan
9	15.4	1355	88	Rural
10	9.5	14051	1479	Suburban
11	5.2	19209	3694	Metropolitan
12	6.4	30349	4742	Metropolitan
13	33.3	19947	599	Rural
14	86.7	7543	87	Rural
15	18.8	48241	2566	Urban
16	4.3	30272	7040	Metropolitan
17	41.4	17347	419	Rural
18	8.7	46423	5336	Metropolitan
19	3.8	22948	6039	Metropolitan
20	4.1	27314	6662	Metropolitan
21	4.1	25287	6248	Metropolitan
22	20.5	33641	1641	Suburban
23	6.6	32782	4967	Metropolitan
24	10.4	24086	2316	Urban
25	10.8	50576	4683	Metropolitan
26	6.5	21938	3375	Metropolitan
28	16.4	31226	1904	Suburban
29	4.7	29037	6178	Metropolitan
30	17.2	12298	715	Rural
31	38.5	56326	1463	Suburban
32	13.0	39780	3060	Metropolitan
33	15.1	32103	2126	Urban
34	13.3	30696	2308	Urban
35	21.5	13760	640	Rural
40	16.8	32878	1957	Suburban

MCFRS
COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

FIRE_BOX (RMZ)	Pop. density per sq. mile	Zone		FIRE_BOX (RMZ)	Pop. density per sq. mile	Zone
0101	11,707.12	Metropolitan		0292	0.00	Metropolitan
0102	16,869.73	Metropolitan		0294	0.00	Metropolitan
0103	6,549.65	Metropolitan		0301	8,300.52	Metropolitan
0104	22,881.01	Metropolitan		0302	4,183.94	Metropolitan
0105	9,440.02	Metropolitan		0303	379.60	Rural
0106	16,468.53	Metropolitan		0304	12,798.91	Metropolitan
0107	11,076.73	Metropolitan		0305	1,954.64	Suburban
0108	5,217.66	Metropolitan		0306	4,264.70	Metropolitan
0110	28,960.73	Metropolitan		0307	3,576.81	Metropolitan
0180	0.00	Metropolitan		0308	4,252.90	Metropolitan
0181	0.00	Metropolitan		0309	4,481.43	Metropolitan
0182	0.00	Metropolitan		0310	2,529.52	Urban
0185	0.00	Metropolitan		0311	4,226.92	Metropolitan
0186	0.00	Metropolitan		0312	1,041.42	Rural
0187	0.00	Metropolitan		0314	3,548.47	Metropolitan
0188	0.00	Metropolitan		0317	1,062.26	Rural
0189	0.00	Metropolitan		0319	234.23	Rural
0190	0.00	Metropolitan		0320	714.07	Rural
0191	0.00	Metropolitan		0321	8,027.33	Metropolitan
0192	0.00	Metropolitan		0324	2,232.90	Urban
0193	25,472.15	Metropolitan		0327	719.68	Rural
0194	3,772.12	Metropolitan		0328	2,824.12	Urban
0201	3,445.73	Metropolitan		0331	332.26	Metropolitan
0202	10,191.40	Metropolitan		0332	0.23	Metropolitan
0203	11,715.91	Metropolitan		0349	0.00	Metropolitan
0204	7,645.11	Metropolitan		0350	0.00	Metropolitan
0205	6,730.32	Metropolitan		0351	0.00	Metropolitan
0206	6,915.83	Metropolitan		0352	0.00	Metropolitan
0207	6,653.18	Metropolitan		0353	0.00	Metropolitan
0208	18,410.41	Metropolitan		0354	0.00	Metropolitan
0209	14,609.81	Metropolitan		0355	5,978.54	Metropolitan
0210	6,509.18	Metropolitan		0356	6,002.24	Metropolitan
0213	5,575.21	Metropolitan		0357	5,104.63	Metropolitan
0214	23,977.52	Metropolitan		0358	0.00	Metropolitan
0290	0.00	Metropolitan		0359	0.00	Metropolitan
0291	0.00	Metropolitan		0360	0.00	Metropolitan
0361	0.00	Metropolitan		0365	6,842.62	Metropolitan
0362	0.10	Metropolitan		0366	6,842.62	Metropolitan

MCFRS
COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

FIRE_BOX (RMZ)	Pop. density per sq. mile	Zone		FIRE_BOX (RMZ)	Pop. density per sq. mile	Zone
0363	6,842.62	Metropolitan		0367	6,842.62	Metropolitan
0364	6,842.62	Metropolitan		0368	6,842.63	Metropolitan
0365	6,842.62	Metropolitan		0369	3,958.61	Metropolitan
0366	6,842.62	Metropolitan		0370	474.66	Metropolitan
0367	6,842.62	Metropolitan		0371	209.11	Metropolitan
0368	6,842.63	Metropolitan		0372	42.88	Metropolitan
0369	3,958.61	Metropolitan		0373	0.00	Metropolitan
0370	474.66	Metropolitan		0374	0.00	Metropolitan
0371	209.11	Metropolitan		0375	0.00	Metropolitan
0372	42.88	Metropolitan		0376	0.00	Metropolitan
0373	0.00	Metropolitan		0377	0.00	Metropolitan
0374	0.00	Metropolitan		0378	0.00	Metropolitan
0375	0.00	Metropolitan		0379	0.00	Metropolitan
0376	0.00	Metropolitan		0380	0.00	Metropolitan
0377	0.00	Metropolitan		0381	43.22	Metropolitan
0378	0.00	Metropolitan		0382	43.22	Metropolitan
0379	0.00	Metropolitan		0383	43.22	Metropolitan
0380	0.00	Metropolitan		0384	43.22	Metropolitan
0381	43.22	Metropolitan		0385	43.22	Metropolitan
0382	43.22	Metropolitan		0386	7.00	Metropolitan
0383	43.22	Metropolitan		0387	0.00	Metropolitan
0384	43.22	Metropolitan		0388	0.00	Metropolitan
0385	43.22	Metropolitan		0389	0.00	Metropolitan
0386	7.00	Metropolitan		0390	0.00	Metropolitan
0387	0.00	Metropolitan		0393	0.00	Metropolitan
0388	0.00	Metropolitan		0401	187.75	Rural
0389	0.00	Metropolitan		0403	433.76	Rural
0390	0.00	Metropolitan		0404	218.51	Rural
0393	0.00	Metropolitan		0405	2,365.01	Urban
0401	187.75	Rural		0406	772.19	Rural
0403	433.76	Rural		0407	671.42	Rural
0404	218.51	Rural		0408	815.97	Rural
0405	2,365.01	Urban		0409	828.52	Rural
0406	772.19	Rural		0410	583.00	Rural
0361	0.00	Metropolitan		0411	507.38	Rural
0362	0.10	Metropolitan		0413	570.31	Rural
0363	6,842.62	Metropolitan		0416	586.33	Rural
0364	6,842.62	Metropolitan		0417	297.17	Rural
0418	636.11	Rural		0519	13,065.45	Metropolitan

MCFRS
COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

FIRE_BOX (RMZ)	Pop. density per sq. mile	Zone		FIRE_BOX (RMZ)	Pop. density per sq. mile	Zone
0419	648.57	Rural		0601	5,107.78	Metropolitan
0420	309.41	Rural		0602	6,400.78	Metropolitan
0421	811.22	Rural		0603	12,050.15	Metropolitan
0422	511.30	Rural		0604	4,392.99	Metropolitan
0423	930.08	Rural		0605	4,258.71	Metropolitan
0424	434.20	Rural		0606	1,823.93	Suburban
0425	947.59	Rural		0607	7,990.43	Metropolitan
0426	781.91	Rural		0608	14,255.48	Metropolitan
0427	877.27	Rural		0609	14,662.16	Metropolitan
0428	1,200.92	Suburban		0610	10,171.23	Metropolitan
0429	663.64	Rural		0611	2,776.05	Urban
0430	813.47	Rural		0690	0.00	Metropolitan
0431	464.09	Rural		0691	7,523.42	Metropolitan
0432	440.14	Rural		0692	6,719.98	Metropolitan
0433	1,051.56	Rural		0693	3,220.60	Metropolitan
0434	257.78	Rural		0694	10,182.34	Metropolitan
0435	599.02	Rural		0701	4,471.34	Metropolitan
0436	708.40	Rural		0702	4,993.68	Metropolitan
0437	1,195.89	Suburban		0703	4,293.31	Metropolitan
0438	1,401.22	Suburban		0704	2,848.77	Urban
0439	857.97	Rural		0705	1,336.61	Suburban
0501	5,004.22	Metropolitan		0706	1,690.80	Suburban
0502	6,161.23	Metropolitan		0707	6,344.03	Metropolitan
0503	3,923.35	Metropolitan		0708	4,978.01	Metropolitan
0504	8,969.39	Metropolitan		0709	2,731.12	Urban
0505	545.56	Rural		0710	2,316.23	Urban
0506	4,841.56	Metropolitan		0711	5,650.79	Metropolitan
0507	4,702.29	Metropolitan		0712	4,014.06	Metropolitan
0508	3,160.32	Metropolitan		0713	4,019.93	Metropolitan
0509	2,532.73	Urban		0714	2,944.47	Urban
0510	6,889.02	Metropolitan		0715	896.48	Rural
0511	5,236.40	Metropolitan		0716	498.70	Rural
0512	6,293.58	Metropolitan		0717	246.47	Rural
0513	4,444.73	Metropolitan		0718	2,247.37	Urban
0514	3,917.73	Metropolitan		0801	8,337.76	Metropolitan
0515	6,408.20	Metropolitan		0802	13,844.83	Metropolitan
0516	3,510.30	Metropolitan		0803	3,735.59	Metropolitan
0517	6,335.30	Metropolitan		0804	6,752.64	Metropolitan
0518	4,249.44	Metropolitan		0805	4,998.89	Metropolitan

MCFRS
COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

FIRE_BOX (RMZ)	Pop. density per sq. mile	Zone		FIRE_BOX (RMZ)	Pop. density per sq. mile	Zone
0806	2,792.68	Urban		1012	1,601.47	Suburban
0807	4,978.26	Metropolitan		1013	1,597.20	Suburban
0808	6,302.80	Metropolitan		1014	1,342.10	Suburban
0812	17,406.09	Metropolitan		1015	2,634.74	Urban
0813	6,837.01	Metropolitan		1016	818.26	Rural
0814	9,077.55	Metropolitan		1017	1,858.44	Suburban
0815	2,351.57	Urban		1018	480.10	Rural
0816	12,308.10	Metropolitan		1020	2,008.11	Urban
0821	1,486.04	Suburban		1021	95.04	Rural
0822	2,326.96	Urban		1022	706.79	Rural
0823	4,944.34	Metropolitan		1023	2,746.72	Urban
0825	93.35	Rural		1024	185.13	Rural
0826	836.79	Rural		1025	0.00	Rural
0827	6,738.67	Metropolitan		1026	0.00	Suburban
0828	7,931.76	Metropolitan		1027	1,653.66	Suburban
0829	7,213.56	Metropolitan		1028	2,792.35	Urban
0830	6,228.33	Metropolitan		1029	1,402.99	Suburban
0845	2,149.06	Urban		1030	647.82	Rural
0846	0.00	Rural		1031	2,134.36	Urban
0847	1,330.15	Suburban		1032	0.00	Rural
0901	106.07	Rural		1033	2,374.02	Urban
0902	80.72	Rural		1034	2,310.51	Urban
0903	44.51	Rural		1101	4,983.34	Metropolitan
0909	113.22	Rural		1102	4,193.56	Metropolitan
0910	130.59	Rural		1103	2,884.91	Urban
0914	274.27	Rural		1104	2,719.41	Urban
0915	51.48	Rural		1105	1,641.13	Suburban
0916	109.38	Rural		1106	5,194.74	Metropolitan
0917	0.47	Rural		1107	4,026.64	Metropolitan
1001	1,843.45	Suburban		1108	0.00	Rural
1002	1,970.61	Suburban		1201	7,545.86	Metropolitan
1003	1,169.48	Suburban		1202	3,055.65	Metropolitan
1004	740.85	Rural		1203	2,180.21	Urban
1005	1,944.79	Suburban		1204	2,731.77	Urban
1006	1,001.88	Rural		1205	3,592.31	Metropolitan
1007	2,014.94	Urban		1206	13,331.77	Metropolitan
1008	2,446.81	Urban		1207	9,795.18	Metropolitan
1009	1,865.89	Suburban		1208	22,078.47	Metropolitan
1010	4,303.10	Metropolitan		1209	3,309.07	Metropolitan

MCFRS
COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

FIRE_BOX (RMZ)	Pop. density per sq. mile	Zone		FIRE_BOX (RMZ)	Pop. density per sq. mile	Zone
1011	4,674.95	Metropolitan		1210	13,629.72	Metropolitan
1211	4,652.18	Metropolitan		1402	75.62	Rural
1212	149.43	Rural		1403	554.28	Rural
1213	421.31	Rural		1404	44.50	Rural
1214	2,583.47	Urban		1405	33.62	Rural
1255	258.49	Rural		1406	21.54	Rural
1256	603.79	Rural		1407	24.20	Rural
1301	298.74	Rural		1408	43.78	Rural
1302	274.17	Rural		1409	5.44	Rural
1303	1,601.26	Suburban		1410	15.60	Rural
1304	2,138.30	Urban		1412	11.52	Rural
1305	299.64	Rural		1413	50.37	Rural
1306	175.96	Rural		1414	21.70	Rural
1307	849.76	Rural		1415	31.48	Rural
1308	325.32	Rural		1416	226.78	Rural
1309	1,229.01	Suburban		1417	52.74	Rural
1311	120.82	Rural		1418	64.49	Rural
1313	149.32	Rural		1421	0.01	Rural
1314	1,267.91	Suburban		1422	0.04	Rural
1315	357.23	Rural		1423	0.00	Rural
1316	40.08	Rural		1424	0.00	Rural
1317	157.13	Rural		1501	2,676.65	Urban
1318	5,061.18	Metropolitan		1502	691.71	Rural
1319	1,002.72	Rural		1503	2,894.31	Urban
1320	104.67	Rural		1504	1,908.78	Suburban
1321	197.45	Rural		1505	2,149.85	Urban
1322	2,033.58	Urban		1506	1,840.04	Suburban
1323	643.95	Rural		1507	3,352.70	Metropolitan
1324	6,745.03	Metropolitan		1508	417.72	Rural
1325	105.45	Rural		1509	124.47	Rural
1326	523.70	Rural		1510	4,419.12	Metropolitan
1327	446.49	Rural		1511	175.02	Rural
1328	608.81	Rural		1512	10,972.12	Metropolitan
1329	155.90	Rural		1513	1,266.71	Suburban
1331	307.33	Rural		1514	1,890.46	Suburban
1332	175.04	Rural		1515	2,031.53	Urban
1333	290.61	Rural		1516	3,819.00	Metropolitan
1334	113.50	Rural		1518	3,765.22	Metropolitan
1335	82.28	Rural		1519	4,109.89	Metropolitan

MCFRS
COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

FIRE_BOX (RMZ)	Pop. density per sq. mile	Zone		FIRE_BOX (RMZ)	Pop. density per sq. mile	Zone
1336	140.10	Rural		1520	126.92	Rural
1401	1,389.47	Suburban		1525	378.22	Rural
1526	6,161.55	Metropolitan		1715	184.94	Rural
1527	4,055.00	Metropolitan		1716	297.07	Rural
1528	5,390.47	Metropolitan		1717	498.85	Rural
1529	11,964.29	Metropolitan		1718	88.58	Rural
1530	1,443.32	Suburban		1719	240.41	Rural
1531	3,810.93	Metropolitan		1720	956.68	Rural
1532	3,016.26	Metropolitan		1721	5,028.06	Metropolitan
1533	290.54	Rural		1722	151.48	Rural
1534	276.27	Rural		1723	1,936.14	Suburban
1535	198.17	Rural		1724	614.56	Rural
1601	4,999.91	Metropolitan		1725	837.70	Rural
1602	14,221.87	Metropolitan		1726	59.88	Rural
1603	6,922.71	Metropolitan		1727	131.24	Rural
1604	4,110.53	Metropolitan		1728	146.61	Rural
1605	6,232.16	Metropolitan		1729	354.16	Rural
1606	7,755.85	Metropolitan		1801	5,869.02	Metropolitan
1607	6,016.57	Metropolitan		1802	1,353.90	Suburban
1608	13,708.80	Metropolitan		1803	8,643.32	Metropolitan
1609	6,790.61	Metropolitan		1804	8,629.90	Metropolitan
1610	7,553.79	Metropolitan		1805	1,798.69	Suburban
1611	5,765.03	Metropolitan		1806	7,415.05	Metropolitan
1612	4,865.53	Metropolitan		1808	3,784.25	Metropolitan
1613	3,280.39	Metropolitan		1809	3,170.67	Metropolitan
1614	14,754.70	Metropolitan		1810	11,688.89	Metropolitan
1615	327.30	Rural		1811	8,115.47	Metropolitan
1616	1,176.50	Suburban		1812	4,488.22	Metropolitan
1617	1,685.99	Suburban		1813	5,999.27	Metropolitan
1618	2,989.35	Urban		1814	12,232.36	Metropolitan
1701	579.16	Rural		1815	6,404.06	Metropolitan
1702	141.11	Rural		1816	9,560.97	Metropolitan
1703	35.76	Rural		1817	5,049.47	Metropolitan
1704	1,882.70	Suburban		1818	8,990.82	Metropolitan
1705	63.14	Rural		1821	1,518.60	Suburban
1706	148.74	Rural		1824	7,844.40	Metropolitan
1707	67.02	Rural		1890	9,740.39	Metropolitan
1708	491.30	Rural		1891	20,997.47	Metropolitan
1709	6,640.00	Metropolitan		1892	4,390.69	Metropolitan

MCFRS
COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

FIRE_BOX (RMZ)	Pop. density per sq. mile	Zone		FIRE_BOX (RMZ)	Pop. density per sq. mile	Zone
1711	141.19	Rural		1893	6,603.98	Metropolitan
1712	679.35	Rural		1894	3,834.79	Metropolitan
1714	172.14	Rural		1895	3,854.95	Metropolitan
1896	3,489.59	Metropolitan		2013	3,669.83	Metropolitan
1897	3,489.59	Metropolitan		2014	1,715.77	Suburban
1898	3,489.59	Metropolitan		2015	5,895.32	Metropolitan
1901	12,687.68	Metropolitan		2016	6,537.14	Metropolitan
1902	4,738.13	Metropolitan		2018	2,427.37	Urban
1903	3,788.74	Metropolitan		2019	9,022.07	Metropolitan
1904	5,787.28	Metropolitan		2020	6,741.22	Metropolitan
1905	7,883.77	Metropolitan		2022	5,781.12	Metropolitan
1906	8,597.60	Metropolitan		2023	5,784.34	Metropolitan
1907	2,143.35	Urban		2090	11,985.65	Metropolitan
1908	7,837.80	Metropolitan		2091	2,369.35	Urban
1909	7,975.80	Metropolitan		2092	402.09	Rural
1910	7,036.83	Metropolitan		2093	4,291.91	Metropolitan
1911	3,972.64	Metropolitan		2094	898.49	Rural
1912	1,488.15	Suburban		2095	8,506.76	Metropolitan
1913	1,949.14	Suburban		2096	13,783.31	Metropolitan
1914	9,231.03	Metropolitan		2097	3,129.11	Metropolitan
1915	4,004.72	Metropolitan		2101	5,922.35	Metropolitan
1916	4,908.82	Metropolitan		2102	8,301.33	Metropolitan
1917	4,487.01	Metropolitan		2103	8,393.55	Metropolitan
1918	7,744.05	Metropolitan		2104	4,071.61	Metropolitan
1922	3,907.63	Metropolitan		2105	2,684.20	Urban
1923	470.13	Rural		2106	5,840.96	Metropolitan
1924	1,421.82	Suburban		2107	9,688.41	Metropolitan
1925	1,786.45	Suburban		2108	7,881.37	Metropolitan
1990	2,188.64	Urban		2112	7,139.98	Metropolitan
1991	8,149.47	Metropolitan		2113	4,675.03	Metropolitan
1992	12,298.46	Metropolitan		2114	7,168.72	Metropolitan
2001	6,005.52	Metropolitan		2201	6,671.86	Metropolitan
2002	4,947.33	Metropolitan		2202	6,082.76	Metropolitan
2003	2,260.06	Urban		2203	7,563.63	Metropolitan
2004	6,119.20	Metropolitan		2204	8,755.40	Metropolitan
2005	3,546.04	Metropolitan		2206	77.78	Rural
2006	4,101.66	Metropolitan		2207	6,219.61	Metropolitan
2007	11,292.28	Metropolitan		2208	3,888.23	Metropolitan
2008	5,772.74	Metropolitan		2209	1,258.94	Suburban

MCFRS
COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

FIRE_BOX (RMZ)	Pop. density per sq. mile	Zone		FIRE_BOX (RMZ)	Pop. density per sq. mile	Zone
2009	11,957.29	Metropolitan		2210	694.64	Rural
2010	3,154.97	Metropolitan		2211	326.26	Rural
2011	1,119.73	Suburban		2212	86.72	Rural
2012	3,216.12	Metropolitan		2213	51.14	Rural
2214	4,136.59	Metropolitan		2407	956.61	Rural
2215	46.57	Rural		2408	4,026.96	Metropolitan
2216	230.12	Rural		2409	2,856.67	Urban
2217	86.71	Rural		2410	3,416.23	Metropolitan
2301	8,602.15	Metropolitan		2412	2,575.98	Urban
2302	4,273.86	Metropolitan		2413	509.69	Rural
2303	2,773.19	Urban		2414	787.06	Rural
2304	1,889.37	Suburban		2415	3,351.67	Metropolitan
2305	6,755.98	Metropolitan		2416	741.92	Rural
2306	6,491.91	Metropolitan		2418	1,504.94	Suburban
2307	7,415.87	Metropolitan		2419	2,144.26	Urban
2308	1,991.87	Suburban		2420	2,981.31	Urban
2309	2,470.94	Urban		2421	1,742.97	Suburban
2310	3,607.68	Metropolitan		2422	1,136.61	Suburban
2311	10,998.30	Metropolitan		2423	1,143.69	Suburban
2312	9,811.37	Metropolitan		2424	2,738.37	Urban
2313	7,511.05	Metropolitan		2425	477.01	Rural
2314	1,000.51	Rural		2426	1,725.51	Suburban
2315	860.94	Rural		2501	3,242.13	Metropolitan
2317	474.46	Rural		2502	6,800.52	Metropolitan
2380	3,107.60	Metropolitan		2503	7,036.31	Metropolitan
2381	6,687.35	Metropolitan		2504	5,679.98	Metropolitan
2382	19,413.38	Metropolitan		2505	2,976.26	Urban
2383	660.87	Metropolitan		2506	5,249.30	Metropolitan
2384	0.00	Metropolitan		2507	4,886.51	Metropolitan
2385	0.00	Metropolitan		2508	15,224.16	Metropolitan
2386	0.00	Metropolitan		2509	7,262.54	Metropolitan
2387	0.00	Metropolitan		2510	4,955.58	Metropolitan
2388	0.00	Metropolitan		2511	1,467.04	Suburban
2389	0.00	Metropolitan		2512	2,280.42	Urban
2390	0.00	Metropolitan		2513	2,609.90	Urban
2391	0.00	Metropolitan		2514	2,758.57	Urban
2392	0.00	Metropolitan		2515	4,860.05	Metropolitan
2393	0.00	Metropolitan		2516	5,157.57	Metropolitan

MCFRS
COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

FIRE_BOX (RMZ)	Pop. density per sq. mile	Zone		FIRE_BOX (RMZ)	Pop. density per sq. mile	Zone
2394	0.00	Metropolitan		2517	4,980.05	Metropolitan
2395	0.00	Metropolitan		2518	4,532.74	Metropolitan
2401	3,048.32	Metropolitan		2519	1,345.49	Suburban
2402	1,819.65	Suburban		2520	5,001.40	Metropolitan
2403	4,905.81	Metropolitan		2521	511.57	Rural
2404	2,135.05	Urban		2522	2,030.29	Urban
2523	1,349.62	Suburban		2813	355.44	Rural
2524	2,439.54	Urban		2815	8,267.25	Metropolitan
2525	8,605.51	Metropolitan		2816	677.52	Rural
2526	518.73	Rural		2817	3,238.70	Metropolitan
2527	3,021.26	Metropolitan		2820	1,345.45	Suburban
2528	678.50	Rural		2821	4,012.08	Metropolitan
2529	374.59	Rural		2824	1,188.24	Suburban
2601	4,061.59	Metropolitan		2825	6,380.00	Metropolitan
2603	4,192.91	Metropolitan		2827	579.66	Rural
2604	5,913.10	Metropolitan		2828	3,812.30	Metropolitan
2605	1,273.32	Suburban		2829	936.04	Rural
2606	8,673.35	Metropolitan		2830	517.34	Rural
2607	1,974.38	Suburban		2831	458.27	Rural
2609	3,197.53	Metropolitan		2832	1,094.46	Rural
2610	2,587.88	Urban		2833	1,920.24	Suburban
2612	1,068.70	Rural		2834	287.75	Rural
2614	2,580.78	Urban		2835	457.21	Rural
2615	412.40	Rural		2901	6,065.77	Metropolitan
2616	1,896.28	Suburban		2902	4,488.84	Metropolitan
2617	755.52	Rural		2906	10,104.32	Metropolitan
2618	2,665.88	Urban		2909	5,673.32	Metropolitan
2619	2,066.83	Urban		2910	6,936.72	Metropolitan
2621	1,809.14	Suburban		2911	9,936.80	Metropolitan
2622	1,994.57	Suburban		2913	2,478.60	Urban
2623	1,196.69	Suburban		2915	5,636.92	Metropolitan
2625	4,647.25	Metropolitan		2924	8,458.78	Metropolitan
2626	1,943.98	Suburban		2942	1,722.07	Suburban
2701	178.72	Rural		2944	12.59	Rural
2801	606.51	Rural		3001	1,570.38	Suburban
2802	2,321.04	Urban		3002	764.27	Rural
2803	532.11	Rural		3003	1,264.88	Suburban
2804	519.79	Rural		3004	1,069.35	Rural
2805	226.93	Rural		3005	0.00	Rural

MCFRS
COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

FIRE_BOX (RMZ)	Pop. density per sq. mile	Zone		FIRE_BOX (RMZ)	Pop. density per sq. mile	Zone
2806	351.77	Rural		3006	1,352.90	Suburban
2807	2,003.12	Urban		3007	508.13	Rural
2808	174.58	Rural		3008	0.00	Rural
2809	889.28	Rural		3009	544.57	Rural
2810	2,483.38	Urban		3010	0.00	Rural
2811	6,889.50	Metropolitan		3011	1,499.20	Suburban
2812	1,249.83	Suburban		3012	0.00	Rural
3013	655.87	Rural		3137	0.00	Rural
3014	564.95	Rural		3139	513.19	Rural
3015	358.38	Rural		3201	636.20	Rural
3016	512.77	Rural		3202	2,421.52	Urban
3017	307.52	Rural		3203	4,450.58	Metropolitan
3018	638.29	Rural		3204	8,331.30	Metropolitan
3019	588.01	Rural		3205	5,515.62	Metropolitan
3020	638.36	Rural		3206	311.32	Rural
3021	45.55	Rural		3207	352.24	Rural
3022	1,050.01	Rural		3208	3,259.85	Metropolitan
3101	10.59	Rural		3209	4,435.43	Metropolitan
3102	0.00	Rural		3210	7,605.01	Metropolitan
3103	642.99	Rural		3211	998.97	Rural
3104	116.26	Rural		3212	3,400.41	Metropolitan
3105	561.29	Rural		3213	1,160.88	Suburban
3108	345.49	Rural		3214	907.01	Rural
3111	623.44	Rural		3215	2,366.65	Urban
3112	937.10	Rural		3216	942.05	Rural
3113	3,541.63	Metropolitan		3217	739.31	Rural
3114	4,171.48	Metropolitan		3218	4,872.99	Metropolitan
3115	3,477.26	Metropolitan		3219	604.50	Rural
3116	3,807.92	Metropolitan		3220	490.29	Rural
3117	588.83	Rural		3221	576.50	Rural
3118	1,959.74	Suburban		3222	2,922.67	Urban
3119	560.94	Rural		3223	5,623.21	Metropolitan
3120	3,300.14	Metropolitan		3224	2,782.83	Urban
3121	477.25	Rural		3225	3,093.79	Metropolitan
3122	443.36	Rural		3226	215.28	Rural
3123	307.67	Rural		3227	1,826.39	Suburban
3124	726.50	Rural		3228	0.00	Metropolitan
3125	3,447.64	Metropolitan		3229	0.00	Metropolitan
3127	212.50	Rural		3230	0.00	Metropolitan

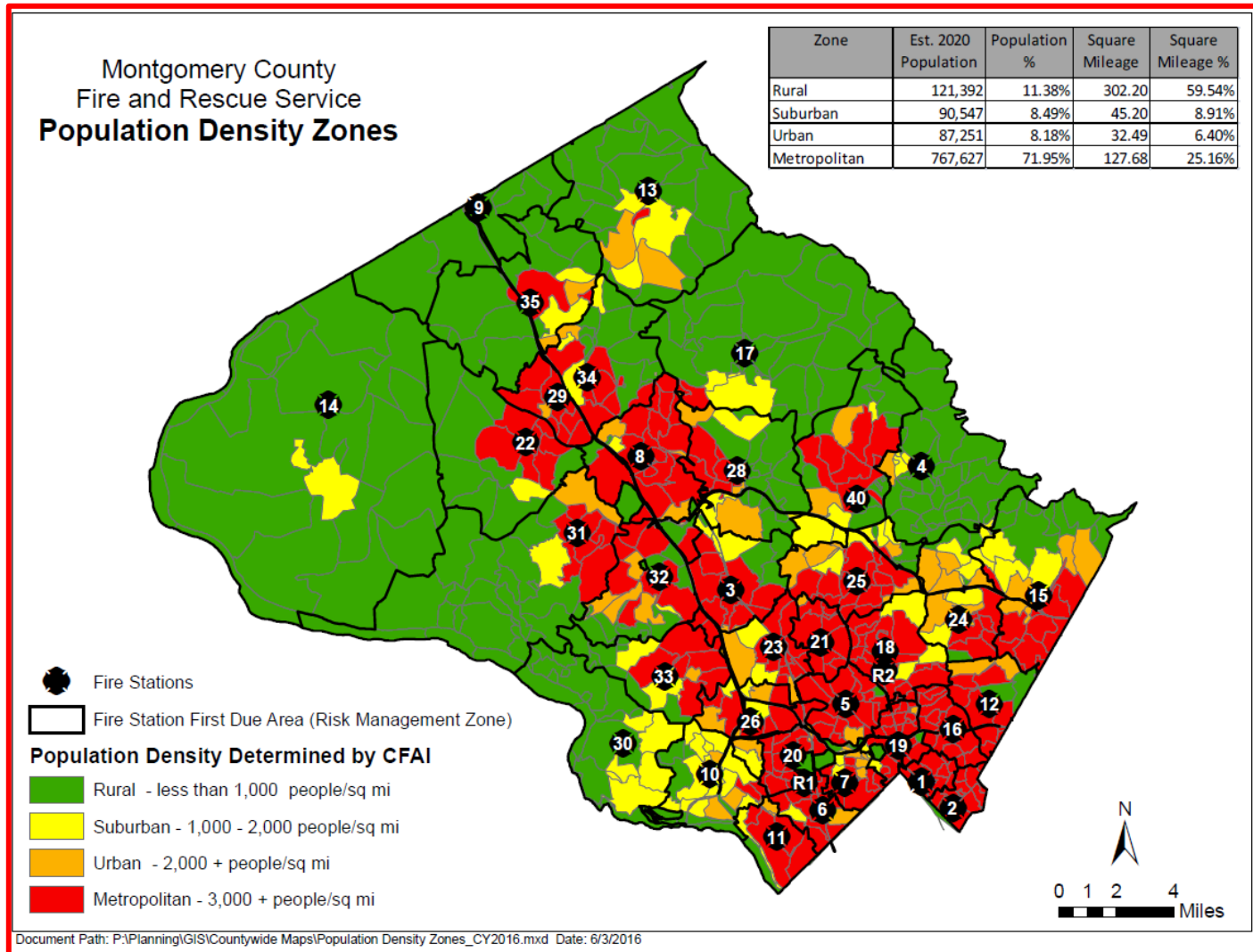
MCFRS
COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

FIRE_BOX (RMZ)	Pop. density per sq. mile	Zone		FIRE_BOX (RMZ)	Pop. density per sq. mile	Zone
3128	59.98	Rural		3231	5,552.15	Metropolitan
3129	39.76	Rural		3232	1,678.39	Suburban
3130	143.52	Rural		3233	132.37	Rural
3131	585.55	Rural		3234	0.27	Rural
3132	2,388.06	Urban		3235	7,939.39	Metropolitan
3133	7,748.96	Metropolitan		3236	640.25	Rural
3135	7,688.74	Metropolitan		3237	581.37	Rural
3136	0.00	Rural		3238	126.47	Rural
3239	5,391.50	Metropolitan		3421	9,610.80	Metropolitan
3301	3,846.76	Metropolitan		3422	7,678.84	Metropolitan
3302	3,911.81	Metropolitan		3423	4,417.74	Metropolitan
3303	3,809.88	Metropolitan		3424	307.66	Rural
3304	3,823.70	Metropolitan		3425	1.19	Rural
3305	3,569.20	Metropolitan		3426	1,189.89	Suburban
3306	1,910.32	Suburban		3501	2,938.69	Urban
3307	3,025.46	Metropolitan		3502	3,912.93	Metropolitan
3308	933.27	Rural		3503	101.27	Rural
3309	394.56	Rural		3504	27.26	Rural
3310	660.44	Rural		3505	146.42	Rural
3312	2,566.64	Urban		3506	97.92	Rural
3315	4,264.65	Metropolitan		3507	1,336.28	Suburban
3316	979.73	Rural		3508	3,129.75	Metropolitan
3322	536.80	Rural		3509	1,286.02	Suburban
3323	520.30	Rural		3510	43.66	Rural
3324	1,128.82	Suburban		3511	2,976.18	Urban
3325	659.76	Rural		3512	96.60	Rural
3326	505.28	Rural		3513	125.54	Rural
3328	394.46	Rural		3514	366.75	Rural
3401	1,830.30	Suburban		3515	103.67	Rural
3402	4,733.17	Metropolitan		3517	48.27	Rural
3403	1,433.60	Suburban		3518	158.37	Rural
3404	2,747.78	Urban		3525	14.71	Rural
3405	228.31	Rural		3526	123.50	Rural
3406	737.68	Rural		4001	164.06	Rural
3407	1,162.20	Suburban		4002	226.99	Rural
3408	200.02	Rural		4003	173.38	Rural
3409	124.94	Rural		4004	371.71	Rural
3410	133.00	Rural		4005	2,688.42	Urban
3411	283.09	Rural		4006	3,539.33	Metropolitan

MCFRS
COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

FIRE_BOX (RMZ)	Pop. density per sq. mile	Zone		FIRE_BOX (RMZ)	Pop. density per sq. mile	Zone
3412	954.19	Rural		4007	4,299.03	Metropolitan
3413	1,038.81	Rural		4008	3,119.80	Metropolitan
3414	783.32	Rural		4009	3,421.86	Metropolitan
3415	6,536.18	Metropolitan		4010	2,065.98	Urban
3416	737.40	Rural		4011	3,042.21	Metropolitan
3417	3,064.05	Metropolitan		4012	1,032.48	Rural
3418	869.38	Rural		4013	1,985.65	Suburban
3419	3,576.61	Metropolitan		4014	210.04	Rural
3420	6,011.00	Metropolitan		4015	256.70	Rural
4016	4,266.95	Metropolitan				
4017	3,693.93	Metropolitan				
4018	643.15	Rural				
4019	644.84	Rural				
4020	524.58	Rural				
4021	494.25	Rural				
4022	1,116.24	Suburban				
4023	378.06	Rural				
4024	1,352.12	Suburban				
4025	1,223.65	Suburban				
4026	2,994.51	Urban				
4027	257.67	Rural				
5001 (Federal)	668.82	Rural				
5101 (Federal)	129.58	Rural				
5201 (Federal)	0.09	Rural				
5301 (Federal)	9.55	Rural				
5401 (Federal)	305.45	Rural				

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

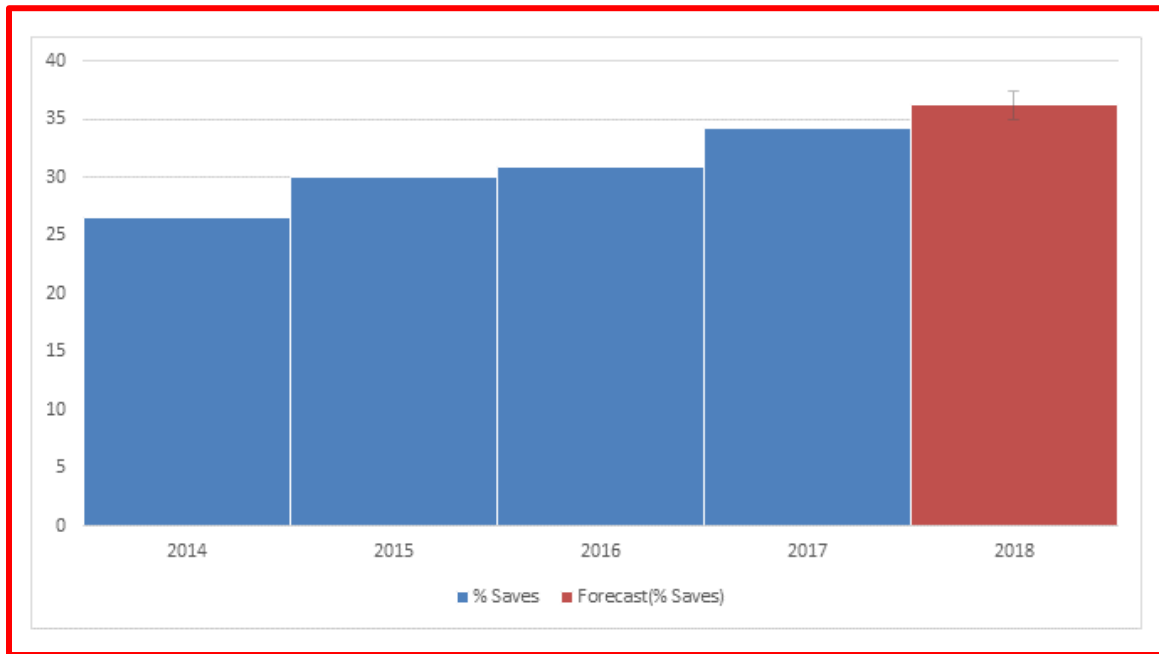


Population Density within MCFRS Planning Zones

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Positive and Negative Service Delivery Outcomes Methodology and Analysis [2A.5]

Event Consequence and Loss Data [2B.3]



CY	% Saves	Forecast (% Saves)	Confidence Interval (% Saves)
2014	26.54		
2015	29.98		
2016	30.82		
2017	34.24		
2018		36.19	29.0454 1.227412714

CY	% Saves	Codes	ROSC	DOA/DNR
2014	26.54	633	168	285
2015	29.98	707	212	436
2016	30.82	730	225	376
2017	34.24	736	252	359

The data displayed above are actual cardiac arrest patients who presented with Return of Spontaneous Circulation (ROSC) after MCFRS lifesaving interventions and are projected as percentages of patient “saves.”

MCFRS

COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

The CFAI mandate for accredited fire departments to document negative and positive outcomes in its service delivery programs was articulated during the mid-2015 release of the reimagined 9th edition FESSAM manual. Prior to this and within the 8th edition FESSAM, the requirement within Performance Indicator 2A.4 was to collect fire loss, injury and life loss, property loss, and other associated loss data.

MCFRS maintains a well-established methodology which allows it to continue collecting property loss figures due to fire, civilian injuries and fatalities due to fire, and firefighter injuries and fatalities due to fires. This methodology includes tracking these negative consequences within the MCFRS National Fire Incident Reporting System (NFIRS)-compliant records management system (RMS) called FireApp, and for firefighter injuries, more granularly, within the MCFRS Risk Map (RMAP) system. For the collection of granular EMS patient positive and negative consequences, the data is collected within the electronic patient care reporting (ePCR) system called eMEDS®.

All data within the RMS, ePCR, and RMAP is available for several years and is routinely used by decision-makers and planners to:

- Analyze historic versus current consequence data secondary to service demand and incident response to determine trending in loss prevention and community asset preservation.
- Determine significant negative consequence trending within planning zones so effective mitigation strategies can be proposed and implemented.
- Monitor the effectiveness of current emergency response and community outreach prevention strategies.
- Assist with categorizing risks and updating the Community Risk Assessment.
- Determine the effectiveness of service delivery programs.
- Report quarterly positive and negative trending to the AHJ and external and internal stakeholders via the Montgomery County Office of Performance Measurement and Management's [CountyStat](#) online system.
- Assist with monitoring and analyzing firefighter and wellness injury trending.

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

- Export aggregated data for State and nationwide consequence analysis via NFIRS, and participation in annual surveys such as the NFPA Survey of Fire Departments for the U.S. Fire Experience.
- Participate in the [Fire-Community Assessment Response Evaluation System](#) (FireCares).
- Export aggregated data for local, State, and national EMS patient consequence and outcome analysis via the Cardiac Arrest Registry to Enhance Survival (CARES) program.

While MCFRS' methodology to determine when a fire incident positive outcome is considered a "save" has not caught up yet with the newly released 9th edition FESSAM, it did begin in Calendar Year 2014 (prior to the release of the reimagined FESSAM) and after implementing high-performance CPR guidelines, collecting return of spontaneous circulation (ROSC) patient "save" data. The monitoring and analysis of this and other critical and positive consequence EMS data is managed by the EMS Section's Office of Quality Improvement.

For the first time in the last 4 years since I've been tracking our performance, this month all three shifts are equal in the % of coded patients with whom we have achieved ROSC; also, during this month we've have had the highest monthly average ever for patients with whom we've been able to achieve ROSC. Please continue your outstanding efforts, and review the CPR reports from Codestat with your shift mates and your EMS Duty officer to see how you can improve and fine tune your performance. This truly translates into extending the time we are able to have these people continue living with their loved ones.

Shift	Codes	ROSC	DOA/DN R	TOR	Trauma	Unknow n	Saves	YTD Saves
A	19	9	7	7	0	3	47.3684	
B	21	10	8	9	0	2	47.6190	
C	19	9	8	5	0	5	47.3684	
Oct Total	59	28	23	21	0	10	47.4576	35.02%

The above 2017 data is routinely shared, along with other headline measure EMS performance data and other MCFRS EMS information, within the [MCFRS EMS Blog](#).

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

In addition to ROSC data, MCFRS maintains a methodology for collecting, analyzing, monitoring, and reporting critical data elements surrounding ST elevation myocardial infarction (STEMI/heart attack) patients and cerebral vascular attack (CVA/Stroke) patients. This information is collected to establish positive and negative trending to determine programmatic baselines, efficiencies, deficiencies, and mitigation efforts.



Year	Estimated Population	Tot. Struct. Fires	Civilian Struct. Fire Deaths	Civilian Struct. Fire Injuries	Struct. Fire Loss	Total Fires (Struct + Others)	Civilian Other Fire Deaths	Total Fire-related Civilian Deaths	Total Fire Loss
2014	1,020,036	618	6	37	55,493,809	1276	1	7	58,617,610
2015	1,030,447	594	0	25	24,812,594	1183	2	2	27,405,839
2016	1,040,116	533	5	66	21,118,384	1214	1	6	23,619,964
2017	1,043,863	542	2	26	21,015,602	1221	1	3	23,621,870

The above table serves as an example of MCFRS' methodology that includes monitoring and measuring negative fire consequences (and with 2015's zero structure fire deaths, positive consequences) within the service area.

MCFRS

COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

The aggregated data used in the preceding table was obtained through one of the many robust and sophisticated Crystal Reports written by MCFRS data experts and analysts. The data projected within these Crystal Reports is obtained via the MCFRS RMS, ePCR, RMAP and other databases and is part of MCFRS' methodology to accumulate and monitor positive and negative consequences within the response area.

The following screenshot is from a Crystal Report used to aggregate and project MCFRS fire-related consequence data:

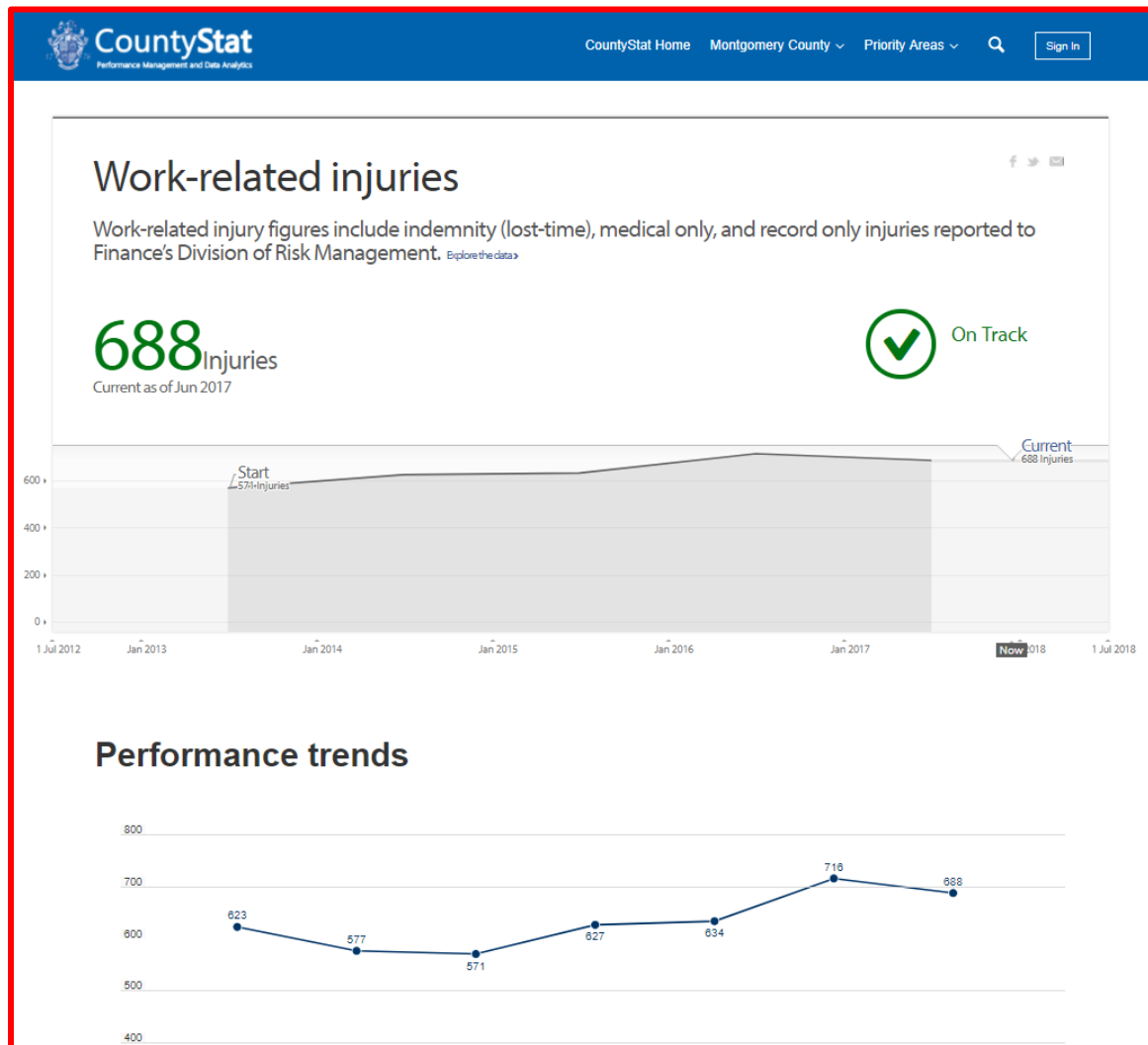
Calendar Year 2017 Fire Deaths, Injuries, and Loss Data:

Part II: Major Fires				
Please list below all multiple-death fires (3 or more deaths), and all large-loss fires (\$1 million or more) that occurred for the year. If none, please list below the three highest loss of life fires (if any) and also the three fires with the highest property damage. (Please attach additional sheet if necessary.)				
<u>Incident Date</u>	<u>Location</u>	<u>Civilian Fatalities</u>	<u>Total Loss</u>	
03/02/2017	16100 WILLOW LA MCG	1	\$425,000.00	
04/02/2017	996 WEST SIDE DR	1	\$170,000.00	
06/17/2017	1342 EXCALIBUR LN	1	\$0.00	
12/30/2017	10909 LARKMEADE LN	0	\$1,100,000.00	

A. FIRES IN STRUCTURES BY FIXED PROPERTY USE (OCCUPANCY) (all in Section A are Incident Type 110-129)	<u># of Fires</u>	<u>Deaths</u>	<u>Injuries</u>	<u>Estimated Property Damage from Fire. If no loss, write 0</u>
01. Private Dwellings (1 or 2 family), including mobile homes (FPU 419)	272	2	17	16,996,676.00
02. Apartments (3 or more families) (FPU 429)	142	0	9	2,067,826.00
03. Hotels and Motels (FPU 449)	3	0	0	702,200.00
04. All Other Residential (dormitories, boarding houses, tents, etc.)	8	0	0	110,000.00
05. TOTAL RESIDENTIAL FIRES (Sum of lines 1 through 4)	425	2	26	19,876,702.00
06. Public Assembly (church, restaurant, clubs, etc.) (FPU 100-199)	18	0	1	43,200.00
07. Schools and Colleges (FPU 200-299)	10	0	0	76,600.00
08. Health Care and Penal Institutions (hospitals, nursing homes,	6	0	0	12,500.00
09. Stores and Offices (FPU 500-599)	19	0	1	703,350.00
10. Industry, Utility, Defense, Laboratories, Manufacturing (FPU 600-799)	2	0	0	0.00
11. Storage in Structures (barns, vehicle storage garages, general	6	0	0	219,505.00
12. Other Structures (outbuildings, bridges, etc.) (FPU 900-999)	56	0	0	83,745.00
13. TOTALS FOR STRUCTURE FIRES (Sum of lines 5 through 12)	542	2	28	21,015,602.00
14a. Fires in Highway Vehicles (autos, trucks, buses, etc.)	258	0	1	2,075,675.00
14b. Fires in Other Vehicles (planes, trains, ships, construction or farm	43	1	1	414,891.00
15. Fires outside of Structures with Value Involved, but Not Vehicles	102	0	0	111,202.00
16. Fires in Brush, Grass, Wildland (excluding crops and timber),	140	0		
17. Fires in Rubbish, Including Dumpsters (outside of structures),	113	0		
18. All Other Fires. (IT 100, 160, 163)	23	0	3	4,500.00
19. TOTALS FOR FIRES (Sum of lines 13 through 18)	1221	3	33	23,621,870.00
20. Rescue, Emergency Medical Responses (ambulance, EMS, rescue)	85,343			
21. False Alarm Responses (malicious or unintentional false calls,	6,643			
22. Mutual Aid Responses Given	2,220			
23a. Hazardous Materials Responses (spills, leaks, etc.) (IT 410-431)	1,339			
23b. Other Hazardous Responses (arcing wires, bomb removal, power line	1,448			
24. All Other Responses (smoke scares, lock-outs, animal rescues, etc.)	21,593			
25. TOTAL FOR ALL INCIDENTS (Sum of lines 19 through 24)	119807			

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

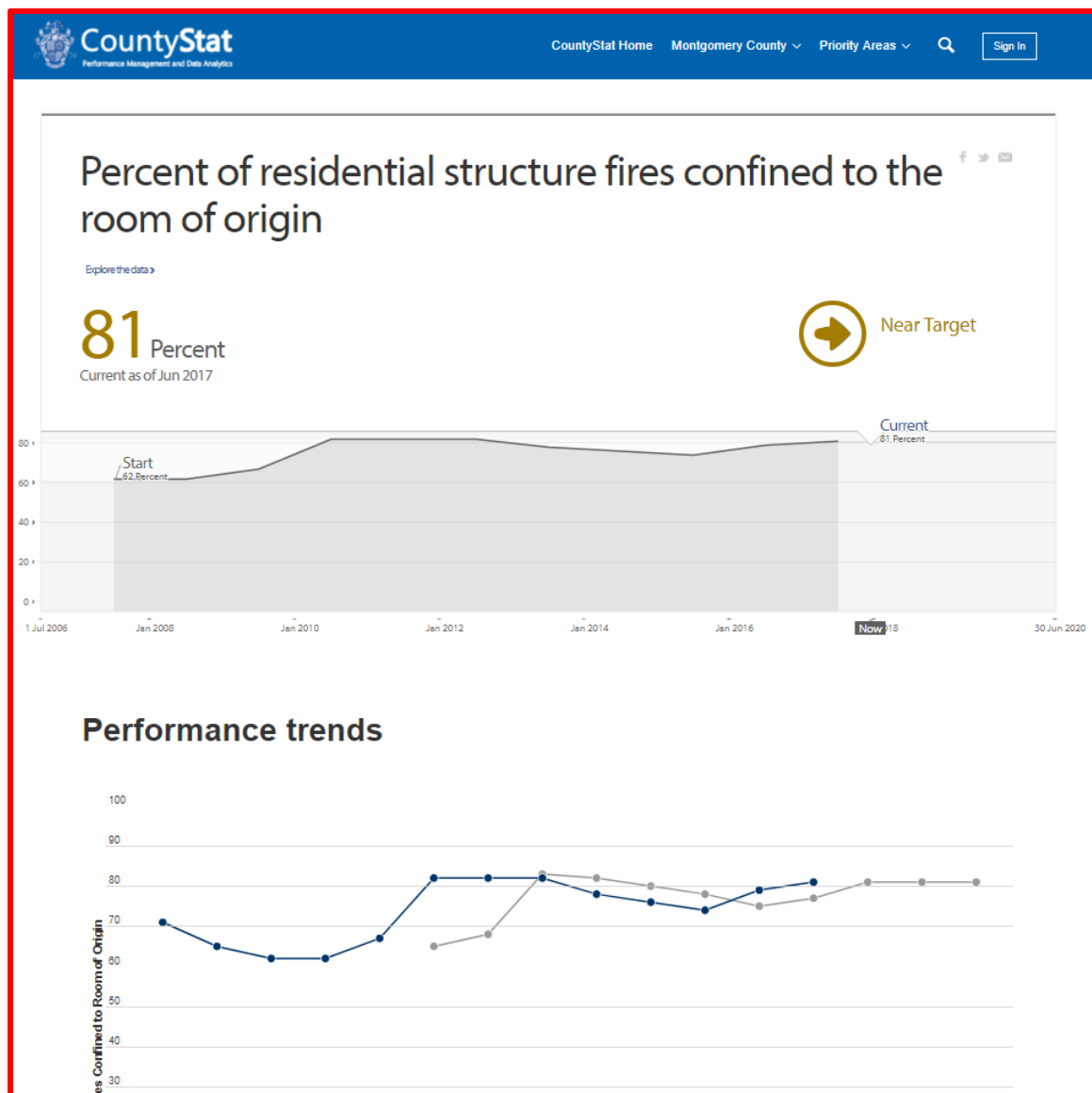
The following two screenshots applicable to PI 2A.5 and 2B.3 provide positive and negative consequence data trending and analysis and how some of these elements are transparently shared with external and internal stakeholders via the online [CountyStat](#) system:



[MCFRS work-related injuries](#)

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER



[Percent of residential structure fires confined to the room of origin](#)

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Station Response/Risk Management Zone Response Area Characteristics [2A.6]

Numerous Montgomery County Government agencies, and in particular MCFRS, utilize geographic information system (GIS) technologies and datasets to geospatially identify response area characteristics (population, transportation systems, land use, topography, etc.) within its adopted planning zone methodologies.

The MCFRS adopted planning zones are comprehensively discussed within the Core Competencies 2A.3 and 2A.4 section of this Community Risk Assessment/Standards of Cover manual. These planning zones (fire station response areas and fire box areas) are included as geospatial layers within GIS; thus, many naturally occurring, human-related, and human-made characteristics are effectively assessed within them.

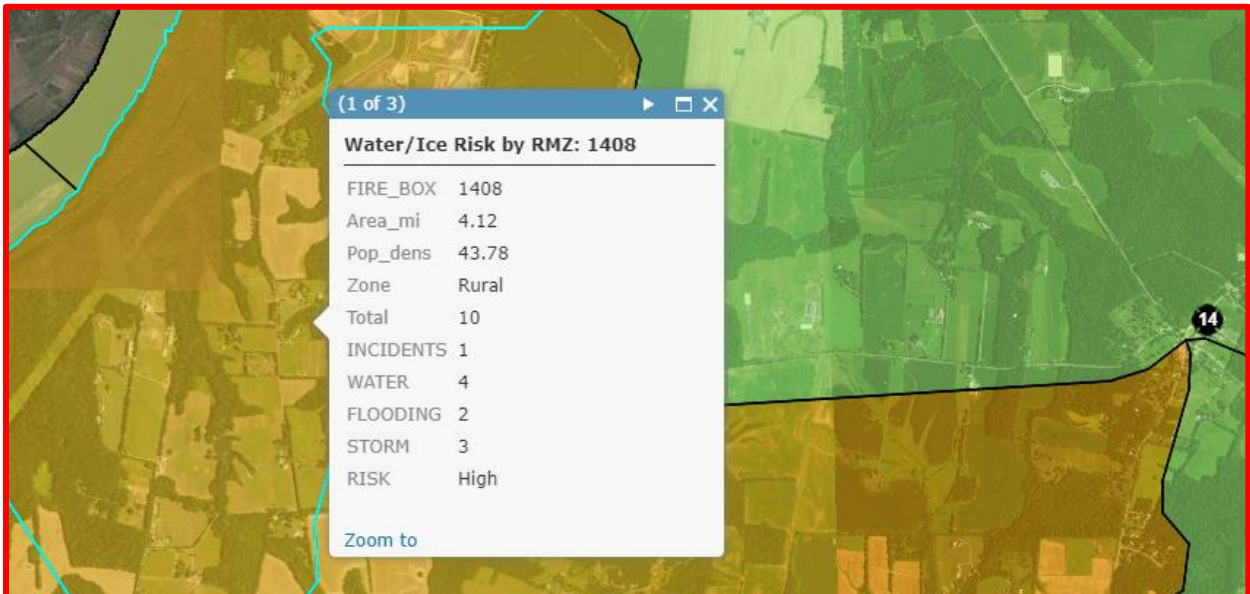
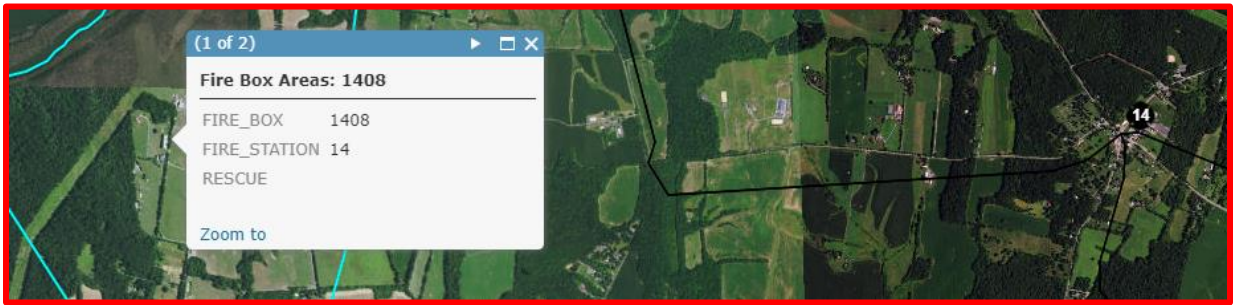
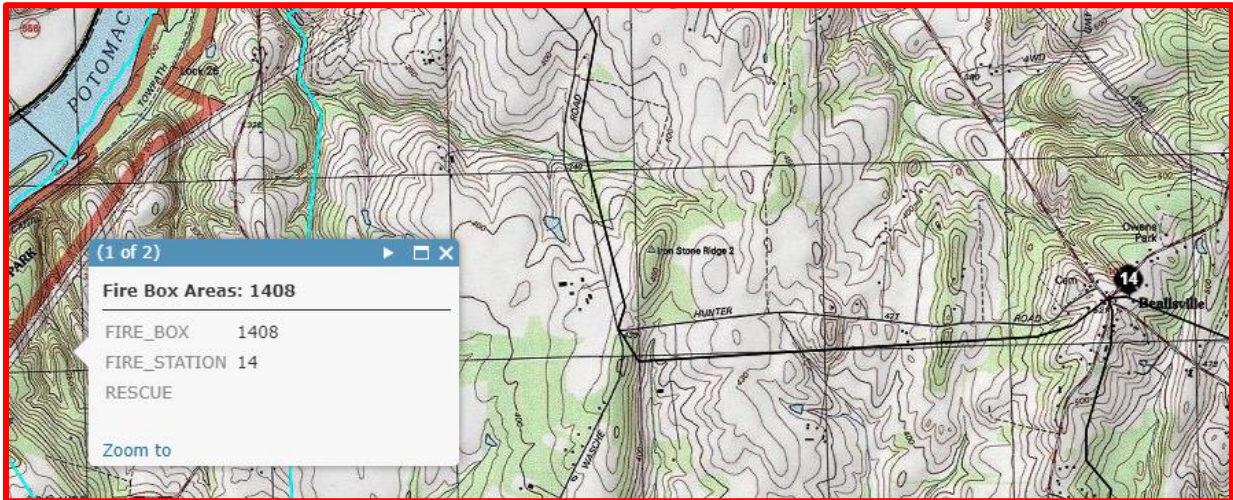
In addition, several of these characteristics and features within the planning zones have been used to develop the updated all-hazard community risk assessment (CRA). Further discussions on the methodologies used to develop the CRA are discussed within the Criterion 2B section of this manual.

While an overview of MCFRS service boundaries and topographical features are discussed in the PI 2A.1 section of this manual, GIS allows for a robust analysis of these naturally occurring characteristics both Countywide and down to the box area risk management zones (RMZ).

The following screenshots of the MCFRS GIS CRA displays Fire Station 14's area and highlighting RMZ (box area) 1408. The first screenshot has the U.S Topographical Base Layer map enabled while the second has the orthophotography layer enabled. Both provide the viewer with distinct insights of the naturally occurring characteristics of that section of the planning zone. Both map layers display the Potomac River while the TOPO map provides terrain contour lines indicating elevation changes and the ortho map's picture displays the agricultural land features. The third screenshot has the MCFRS Water & Ice Rescue Risk Analysis layer tuned on and one can view the numerous

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

characteristics that were used to determine this RMZ as a High-Risk area for Water and Ice Rescue.



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Finally, the following analysis is offered to document climatic and significant weather-related historical natural disasters and considered part of the naturally occurring characteristics of Montgomery County.

Located in the center of the Mid-Atlantic region of the United States, Montgomery County enjoys four separate and distinct seasons. Because the County lies in the humid subtropical climate zone, summers tend to be humid and warm to hot. The summer months can bring pleasant days in the 80s as well as consecutive days in the mid to high 90s. Winters are generally mild, although, the thermometer can hit zero during the occasional major winter event. Climatic data from the chart below was extracted using the [NOAA National Climatic Data](#) Center site (where the Maryland city used was Rockville) and provides the latest three-decade averages of climatological variables, temperature, and precipitation.

Average Annual Winter Temperature	36 degrees
Average Annual Spring Temperature	55 degrees
Average Annual Summer Temperature	75 degrees
Average Annual Autumn Temperature	57 degrees
Average Winter High	43 degrees
Average Winter Low	29 degrees
Average Summer High	83 degrees
Average Summer Low	67 degrees
Average Annual Precipitation	40"
Average Annual Snowfall	17"
Average Humidity	70%

The State of Maryland sees an average of 3.2 tornados per year. These tornados are relatively small with minimal damage and rarely occur within Montgomery County. The County has experienced only 21 documented tornadoes between [1950 and December of 2016](#). None were greater than an F1. [The 22nd documented tornado, an EF0, occurred on June 19, 2017.](#)

<https://twitter.com/mcfrsPIO/status/876918237002379265>

<https://twitter.com/mcfrsPIO/status/877124328218906626>

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

The State of Maryland has had approximately 68 recorded earthquakes either in or very near a bordering state since 1758. Montgomery County had never been the epicenter of an earthquake until July 16, 2010. On that date, a [3.6 earthquake](#), centered near Germantown occurred at approximately 5 AM. According to Reger (1987 & rev. 2001) and the Maryland Geological Survey, “Maryland is appropriately placed into a zone of minor expected damage, corresponding to Mercalli intensity V to VI ([p. 9](#)).”

Montgomery County’s biggest natural disaster threat comes from winter storms, significant spring and summer thunder storms, hurricanes, and tropical storms. September is the most dangerous and vulnerable month for hurricane damage. Due to the proximity to the Potomac River, flooding is a common occurrence when a hurricane hits the Mid Atlantic. The storm surge and runoff will cause the river to breach its banks and make a raging river of violent rapids at Great Falls. There are also a number of notorious low areas and small creeks throughout the County that are prone to flash flooding. Although, worth noting, a [2013 Washington Post article](#) indicates the Washington, DC’s Maryland suburbs are amongst the nation’s lowest natural disaster risk areas.

Most recent natural disasters (since 2003):

- Maryland Severe Winter Storm and Snowstorm, Incident Period: January 22, 2016 to January 23, 2016, Major Disaster (**Presidential**) Declared DR-4261: March 04, 2016, FEMA Id: 4261, Natural disaster type: Snowstorm, Winter Storm
- Maryland Hurricane Sandy, Incident Period: October 26, 2012 to November 08, 2012, Emergency Declared EM-3349: October 28, 2012, FEMA Id: 3349, Natural disaster type: Hurricane
- Maryland Hurricane Sandy, Incident Period: October 26, 2012 to November 04, 2012, Major Disaster (**Presidential**) Declared DR-4091: November 20, 2012, FEMA Id: 4091, Natural disaster type: Hurricane

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

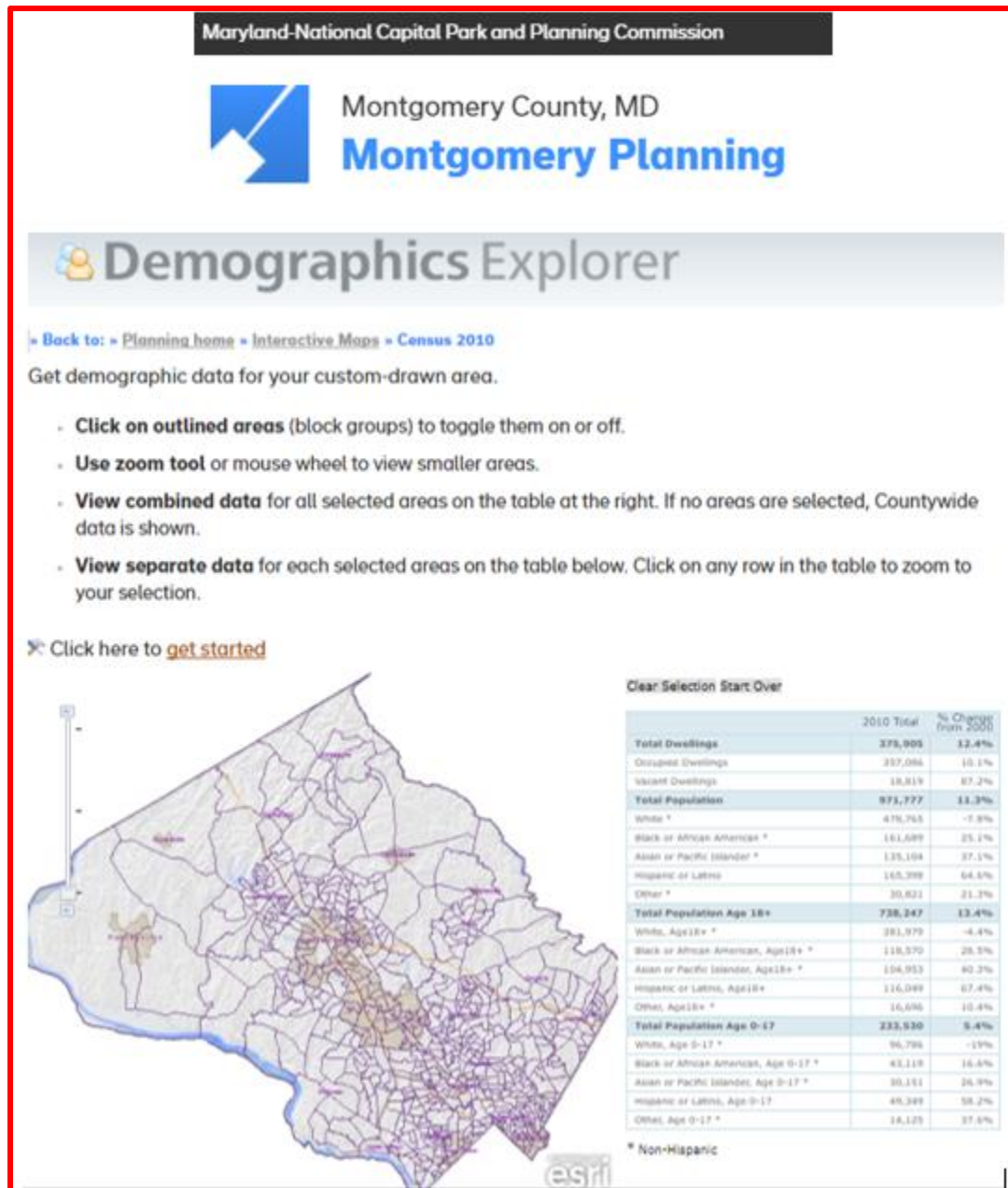
- [Maryland Severe Storms and Straight-line Winds \(Derecho\)](#), Incident Period: June 29, 2012 to July 08, 2012, Major Disaster (**Presidential**) Declared DR-4075: August 02, 2012, FEMA Id: 4075, Natural disaster type: Storm, Wind
- Maryland Hurricane Irene, Incident Period: August 26, 2011 to September 05, 2011, Emergency Declared EM-3335: August 27, 2011, FEMA Id: 3335, Natural disaster type: Hurricane
- Maryland Severe Winter Storms and Snowstorms, Incident Period: February 05, 2010 to February 11, 2010, Major Disaster (**Presidential**) Declared DR-1910: May 06, 2010, FEMA Id: 1910, Natural disaster type: Snowstorm, Winter Storm
- Maryland Severe Winter Storm and Snowstorm, Incident Period: December 18, 2009 to December 20, 2009, Major Disaster (**Presidential**) Declared DR-1875: February 19, 2010, FEMA Id: 1875, Natural disaster type: Snowstorm, Winter Storm
- Maryland Severe Storms, Flooding, and Tornadoes, Incident Period: June 22, 2006 to July 12, 2006, Major Disaster (**Presidential**) Declared DR-1652: July 02, 2006, FEMA Id: 1652, Natural disaster type: Storm, Tornado, Flood
- Maryland Hurricane Katrina Evacuation, Incident Period: August 29, 2005 to October 01, 2005, Emergency Declared EM-3251: September 13, 2005, FEMA Id: 3251, Natural disaster type: Hurricane
- Maryland Hurricane Isabel, Incident Period: September 18, 2003 to September 29, 2003, Major Disaster (**Presidential**) Declared DR-1492: September 19, 2003, FEMA Id: 1492, Natural disaster type: Hurricane

The number of natural disasters that have occurred in Maryland since 1952 (32) is lower than the US average (42).

Major Disasters (Presidential) Declared since 2003 affecting Montgomery County: 7
Emergency Declarations affecting Montgomery County since 2003: 3
Causes of natural disasters since 2003: Hurricanes: 5 (two attributable to Hurricane Sandy), Winter/Snow Storms: 3, Wind Storms: 2

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Station Response/Risk Management Zone Socioeconomic/Demographic Features [2A.7]



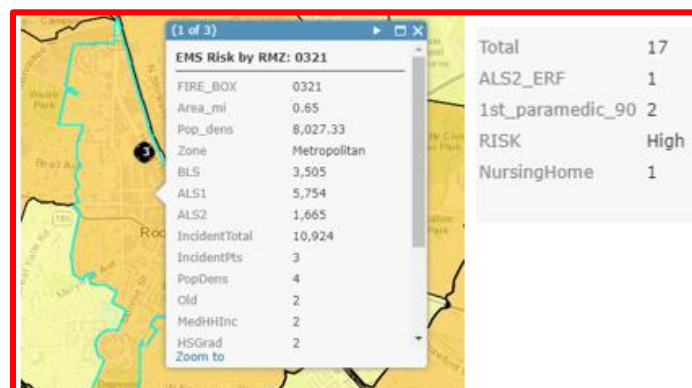
The importance of understanding a community's past, current, and future projections of its population's social, economic, education level, earning potential, cost of living, and cultural and demographic characteristics cannot be overstated for effective public safety agencies charged to protect and help keep those communities safe. Aging communities, young communities experiencing baby booms, transient communities, communities

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experiencing significant population growth, communities with large immigrant populations, communities with significant drug and alcohol abuse challenges and high crime rates are just a few of the challenges fire-rescue departments must understand to develop strategies to meet service level demand increases and develop mitigation programs.

Fortunately for MCFRS leadership, Montgomery County's demographic and socioeconomic conditions and data are very well documented, analyzed, and aggregated through many reputable sources. These sources include the [Maryland State Department of Planning and Data Center](#), the [Montgomery County Planning Department](#) and the [GIS mapping, online tools](#), and data they make available for consumption, and the [Montgomery County Department of Finance](#).

In addition to the aforementioned and discussed in earlier areas of this Community Risk Assessment/Standards of Cover manual, MCFRS' GIS Specialist maintains access to internal Montgomery County and external (U.S. Census, etc.) local demographic and socioeconomic geospatial data. An excellent example of how MCFRS analyzes and leverages this data is its introduction to the 2017 Community Risk Assessment. The following is a MCFRS GIS screenshot from analyzing EMS risk for RMZ 0321 in Rockville. Based on a point system which analyzed numerous categories, including socioeconomic and demographic, this RMZ is determined to be a high-risk EMS area. The specific demographic and socioeconomic values included in the EMS risk assessment are included on the next page.



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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Population /square mile within a box area (RMZ)	Estimated population density within the box area calculated on a percentage of the census block that falls within the box area (RMZ)	1 - 1,000 people/sq. mi= 1 pt. 1,000-2,000 people/sq. mi= 2 pt. 2,000-3,000 people/sq. mi= 3 pt. 3,000+ people/sq. mi= 4 pt.
Percentage of population within a box area (RMZ) 65 years or older	Percent of estimated population within the box area (calculated on a percentage of the census block) that are 65 Y.O. or older	1% - 10 % = 1 pt. 10.1% - 20% = 2 pts. 20.1% - 30% = 3 pts. 30.1% + = 4 pts.
Median Household Income within a box area (RMZ)	Median Household Income within the box area (calculated on a percentage of the census block)	\$125,001 - \$200,000 = 1 pt. \$70,001 - \$125,000 = 2 pts. \$50,001 - \$70,000 = 3 pts. \$0 - \$50,000 = 4 pts.
Percentage of population ≥ 25 YO within a box area (RMZ) that's a HS graduate or more	Percent of estimated population ≥ 25 YO within the box area (calculated on a percentage of the census block) that are at least a HS graduate	94.1% - 95 % = 1 pt. 90.1% - 94% = 2 pts. 70.1% - 89.9% = 3 pts. 1% - 70% = 4 pts.

This table represents the category and hazard descriptions along with the hazard points assigned for socioeconomic and demographic characteristics for MCFRS' EMS Risk Assessment as part of the Community Risk Assessment. Other categories analyzed but not shown here are incident frequency, first-arriving paramedic total response times at the 90th percentile, and ERF total response times for ALS2 incidents at the 90th percentile.

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Montgomery County's Department of Finance produces an annual analysis of regional and local economic indicators. MCFRS routinely references these annual reports for planning and analysis. [The 2017 Economic Indicators report may be found here.](#)

Montgomery County, Maryland

ECONOMIC INDICATORS

Montgomery County Council

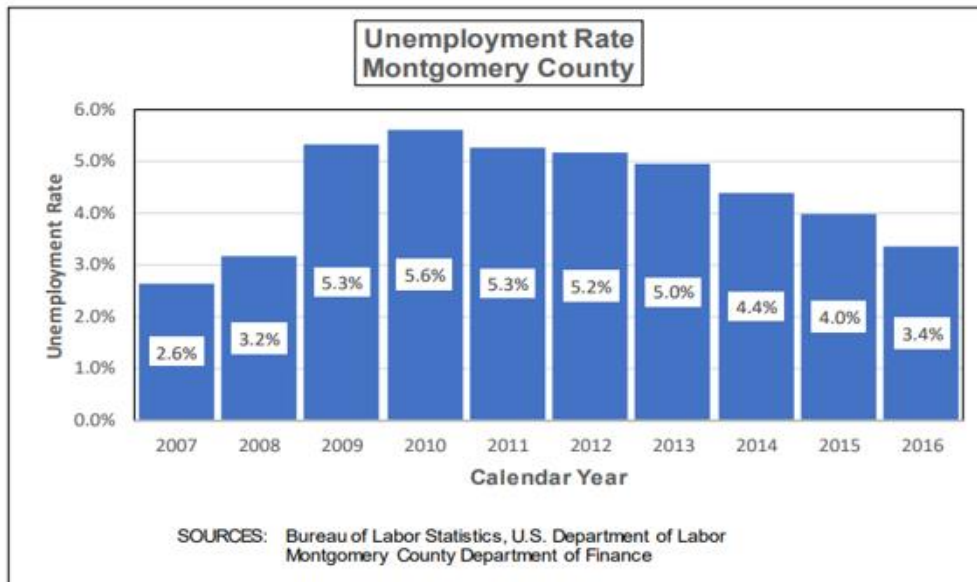
Department of Finance



April 18, 2017

The unemployment rate continued to decline in CY2016 from its peak of 5.6 percent in CY2010.

The unemployment rate declined from 4.0 percent in CY2015 to 3.4 percent in CY2016 but remained above the low unemployment rates experienced in CY2007 and CY2008.



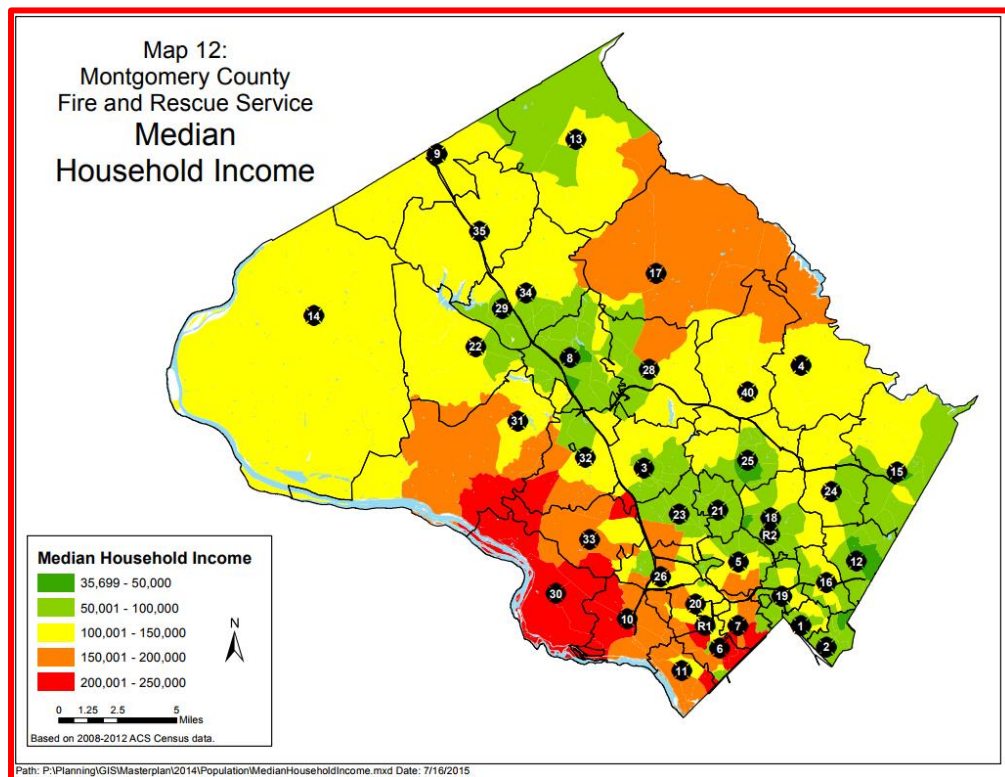
MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Another example of MCFRS' commitment to using socioeconomic and demographic data in planning and evaluation are the inclusion of some of this information in its [2016-2022 Fire, Rescue, Emergency Medical Services, and Community Risk Reduction Master Plan](#) specifically within Section 4 (beginning on page 4-1) , which discusses the All-Hazard Risk Assessment and Standards of Cover.

There are also a few maps in the Master Plan within Appendix E. These are hyperlinked for the online viewer below. A visual of Map 12 (median household income) is also shown below.

Appendix E – Demographic Maps

- [Map 10](#)
- [Map 11](#)
- [Map 12](#)
- [Map 13](#)



MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Montgomery County DEMOGRAPHIC AND SOCIO-ECONOMIC OUTLOOK											
	Historical					Projected					
	1970	1980	1990	2000	2010 *	2015	2020	2025	2030	2035	2040
Population Characteristics:											
Total Population	522,809	579,053	757,027	873,341	971,777	1,036,000	1,067,000	1,110,000	1,153,900	1,186,600	1,206,800
Male	253,242	278,740	364,870	418,622	466,402	497,040	511,670	531,820	552,430	567,970	577,820
Female	269,567	300,313	392,157	454,719	505,375	538,960	555,330	578,180	601,470	618,640	628,980
Non-Hispanic White **	N/A	477,976	549,217	524,251	478,765	471,600	440,930	422,250	408,630	395,270	381,700
All Other **	N/A	101,077	207,810	349,090	493,012	564,400	626,070	687,750	745,270	791,340	825,100
Selected Age Groups:											
0-4	43,074	33,374	58,220	60,173	63,732	63,300	68,610	71,990	73,620	74,390	74,600
5-19	161,380	138,269	137,404	178,040	188,825	197,930	195,440	199,860	208,430	217,130	219,690
20-44	175,059	228,828	334,195	325,959	326,989	345,320	353,120	365,360	371,240	369,800	369,790
45-64	110,677	127,677	150,059	211,012	272,462	285,790	281,640	277,120	279,800	288,920	298,780
65+	32,619	50,905	77,149	98,157	119,769	143,660	168,200	195,680	220,820	236,360	243,940
Total	522,809	579,053	757,027	873,341	971,777	1,036,000	1,067,000	1,110,000	1,153,900	1,186,600	1,206,800
Total Household Population	516,645	573,421	749,257	863,910	962,877	1,026,310	1,056,590	1,098,600	1,141,240	1,172,532	1,191,388
Total Households	156,674	207,195	282,228	324,565	357,075	377,950	394,750	414,875	436,900	450,775	460,575
Average Household Size	3.30	2.77	2.65	2.66	2.70	2.72	2.68	2.65	2.61	2.60	2.59
Labor Force:											
Total Population 16+	355,704	447,521	596,994	675,119	765,580	823,660	852,690	888,090	921,580	948,400	966,530
In Labor Force	226,791	313,248	448,284	477,123	559,430	596,050	607,960	621,560	634,920	644,670	652,450
% in Labor Force *	63.8	70.0	75.1	70.7	73.1	72.4	71.3	70.0	68.9	68.0	67.5
Male Population 16+	167,959	211,574	282,341	316,217	361,300	388,970	402,530	418,980	434,320	446,740	455,360
In Labor Force	141,910	173,715	236,007	246,128	285,880	304,230	310,120	317,680	325,310	330,860	335,340
% in Labor Force *	84.5	82.1	83.6	77.8	79.1	78.2	77.0	75.8	74.9	74.1	73.6
Female Population 16+	187,745	235,947	314,653	358,902	404,280	434,690	450,160	469,110	487,260	501,660	511,170
In Labor Force	84,881	139,533	212,277	230,995	273,550	291,820	297,840	303,880	309,610	313,810	317,110
% in Labor Force *	45.2	59.1	67.5	64.4	67.7	67.1	66.2	64.8	63.5	62.6	62.0
Jobs by Place of Work :	235,394	349,504	512,644	592,976	644,992	676,500	715,200	742,700	759,000	774,800	792,500
Personal Income :											
Total (million of constant 2009\$)	\$16,934.2	\$21,493.1	\$36,643.1	\$53,917.8	\$66,786.2	\$73,551.9	\$82,222.0	\$89,849.0	\$96,661.0	\$102,879.4	\$108,513.0
Per Capita (constant 2009\$)	\$32,293	\$36,926	\$48,196	\$61,446	\$68,454	\$70,996	\$77,059	\$80,945	\$83,769	\$86,701	\$89,918

** For 2010 to 2040 non-hispanic white population is equal to "non-hispanic white alone", and all other population is equal to "all other races", alone and two or more races.

* Labor force participation rates for 2010 are estimates based on the 2008-2012 American Community Survey. These participation rates are applied to the Census 2010 population by age/sex to yield labor force estimates.

SOURCE: Projections prepared by the Maryland Department of Planning, July 2014. Population and household data from 1970 thru 2010 are from the U.S. Census Bureau, as is the labor force data from 1970 thru 2000. Labor force participation rate data for 2010 is an estimate by the Maryland Department of Planning based on 2008-2012 American Community Survey data. 1990 race and sex population is from modified age, race, sex data (MARS) and 2000 race and sex population from modified race data, both from the U.S. Census Bureau. Historical jobs, total personal income and per capita personal income data are from the U.S. Bureau of Economic Analysis.

Projections are rounded, therefore numbers may not add to totals.

Source: <http://www.mdp.state.md.us/MSDC/County/mont.pdf> and extracted on 12/14/2017

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

MCFRS Community Safety and Remediation Programs [2A.8]

An integral part of the MCFRS mission is fire and life safety education and risk reduction. The department proactively engages in Community Risk Reduction (CRR) and uses a multi-step approach to identify and prioritize risks and hazards facing the community. All programs are documented in the department's CRR database through incident reports and the department's on-line portal. These resources provide critical information to direct, assess, and improve implementation of CRR programs and to identify high-risk areas to target for education and mitigation strategies.



MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Understanding the importance of a fire department maintaining an effective community risk reduction program (CRR) cannot be overstated. A community that can minimize the occurrences of emergencies is a safer and healthier community.

The following is a definition of CRR provided by respected fire protection engineer, fire marshal, and educator Jim Crawford in a [2014 Fire Rescue Magazine online article](#):

“CRR is not actually a name of something; it is a process. The definition developed for the Vision 20/20 Project years ago is as follows: CRR is the identification and prioritization of risks followed by the coordinated application of resources to minimize the probability or occurrence and/or the impact of unfortunate events.”

“In a fire service context, it means that the fire department exists not only to respond to emergencies after the fact but to prevent or reduce the effects of their occurrence in the first place. It means the fire service will (and should) act proactively as a risk reduction entity for the community. It also assumes that the fire service can't do it alone and must ultimately partner with other community organizations to accomplish risk-reducing objectives.”

MCFRS has an expansive list of programs that address fire safety, injury prevention and risk reduction programs. These programs build on existing efforts to reduce fire loss, deaths and injuries and to identify critical partnerships in areas where cultural, language or literacy barriers exist in high-risk communities to ensure safety education reaches those who are often hardest to reach.

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER



December 2015 “Only a Working Smoke Alarm Can Save Your Life” Campaign marketed on County Ride-On buses and bus stops:

<https://twitter.com/mcfrsPIO/status/672861531139371008>



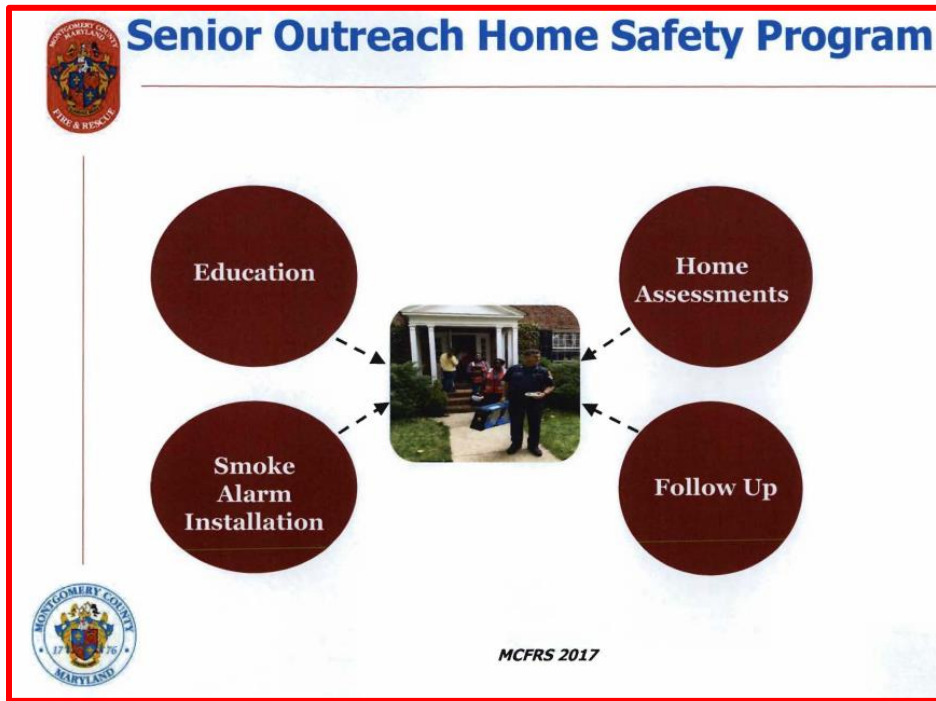
Advertising: Get on the bus Smoke Alarm and Home Safety Check Campaign



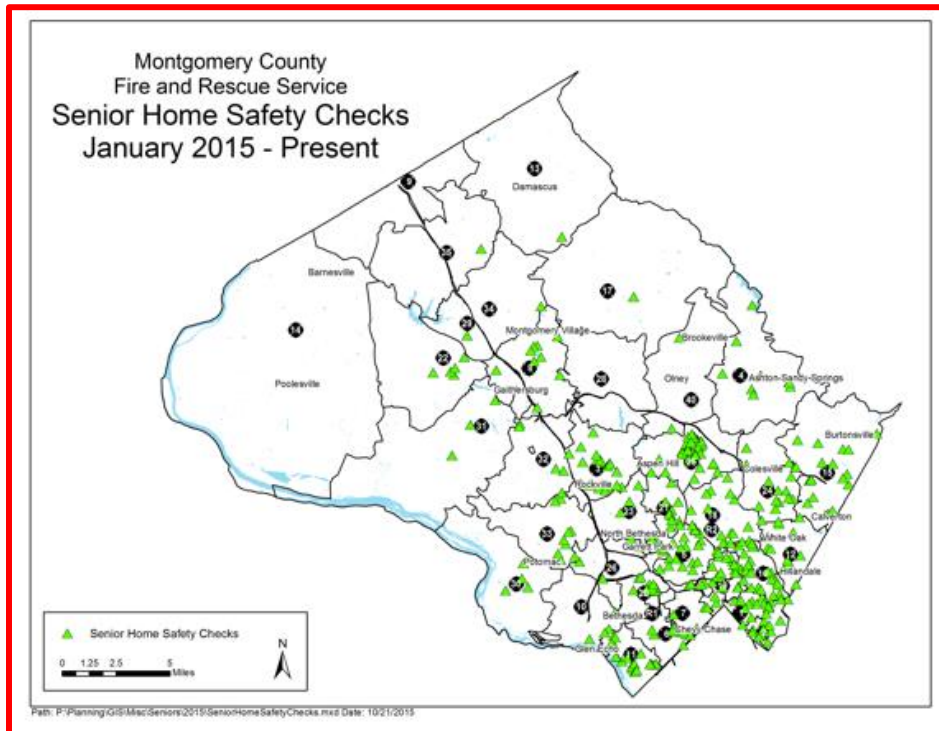
- Bus Transit Centers Marketing Campaign continues (pending funding). Illuminated at night.
- Multilingual campaign advertised in the interior space on Ride On Buses.
- Re-designed multilingual door hangers. Shipment to all stations for the Statewide Risk Reduction initiative. Materials feature new smoke alarm law information, 10-year rule on smoke alarm replacement and info about free home safety program.

MCFRS Management Team Briefing

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER



MCFRS has been conducting appointment-based Home Safety Visits for seniors and high-risk residents since 2016. Data from each home safety visit is captured, mapped and evaluated, and a model program has emerged that assesses fire risk, injury and fall prevention and uses intelligent data and metrics to direct efforts to residents having the highest risk.



MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Direct-impact programs such as the Home Safety Visits program have ensured hundreds of homes belonging to the County's most vulnerable residents have up-to-date smoke alarms and residents have the knowledge of what to do in the event of a fire; thus, resulting in safer communities and reduced risk to first-responders.



MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Critical Infrastructure Supporting Emergency Response within RMZs [2A.9]

MCFRS identifies critical infrastructure by individual planning zone (where location-specific) and by county-wide perspective (where certain types of infrastructure can be found throughout Montgomery County). In accordance with the 6th edition CRA-SOC Guide and June 26, 2017 edition FESSAM Interpretation Guide, the department defines critical infrastructure as that being essential to reaching, controlling, and terminating incidents occurring at risk locations.

MCFRS identifies and documents many of these critical infrastructures within its planning zones through geospatial layers within its GIS. This allows the department to better plan and understand the critical and interrelated systems needed to provide effective emergency service delivery to its customers. Using GIS also enhances analysis as other planning zone features, such as those discussed in the response area characteristics (PI 2A.6) section of this manual, can be better understood.

Critical infrastructure identified in specific locations within planning/risk management zones include:

- MCFRS facilities: 37 stations, ECC, PSHQ, Logistics/CMF, PSTA, FEI, Dover Road Warehouse
- Federal fire stations: Stations 50-54
- Refueling facilities
- Drafting sites, cisterns and dry hydrants
- Hospitals and the Adventist HealthCare Germantown Emergency Center (GEC).
- Fire hydrant locations

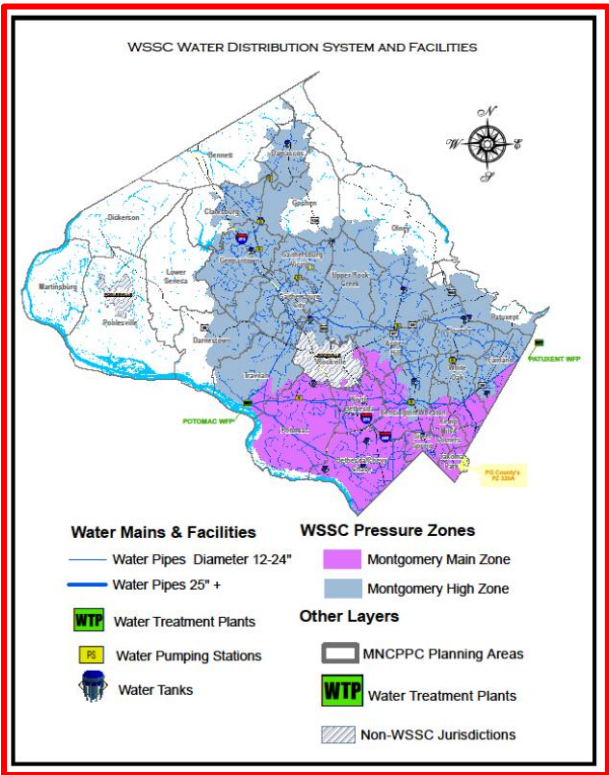
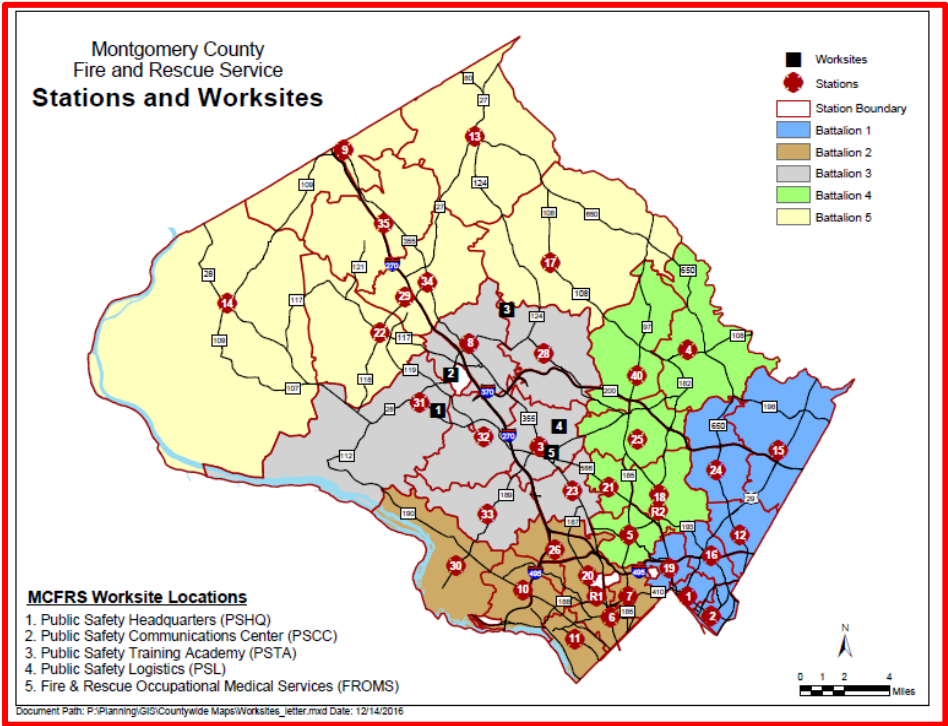
Critical infrastructure identified as having widespread coverage throughout the County (not limited to a specific planning/risk management zone) include:

- Highway/street network
- Communication systems:
 - County radio sites & data centers (“server farms”)

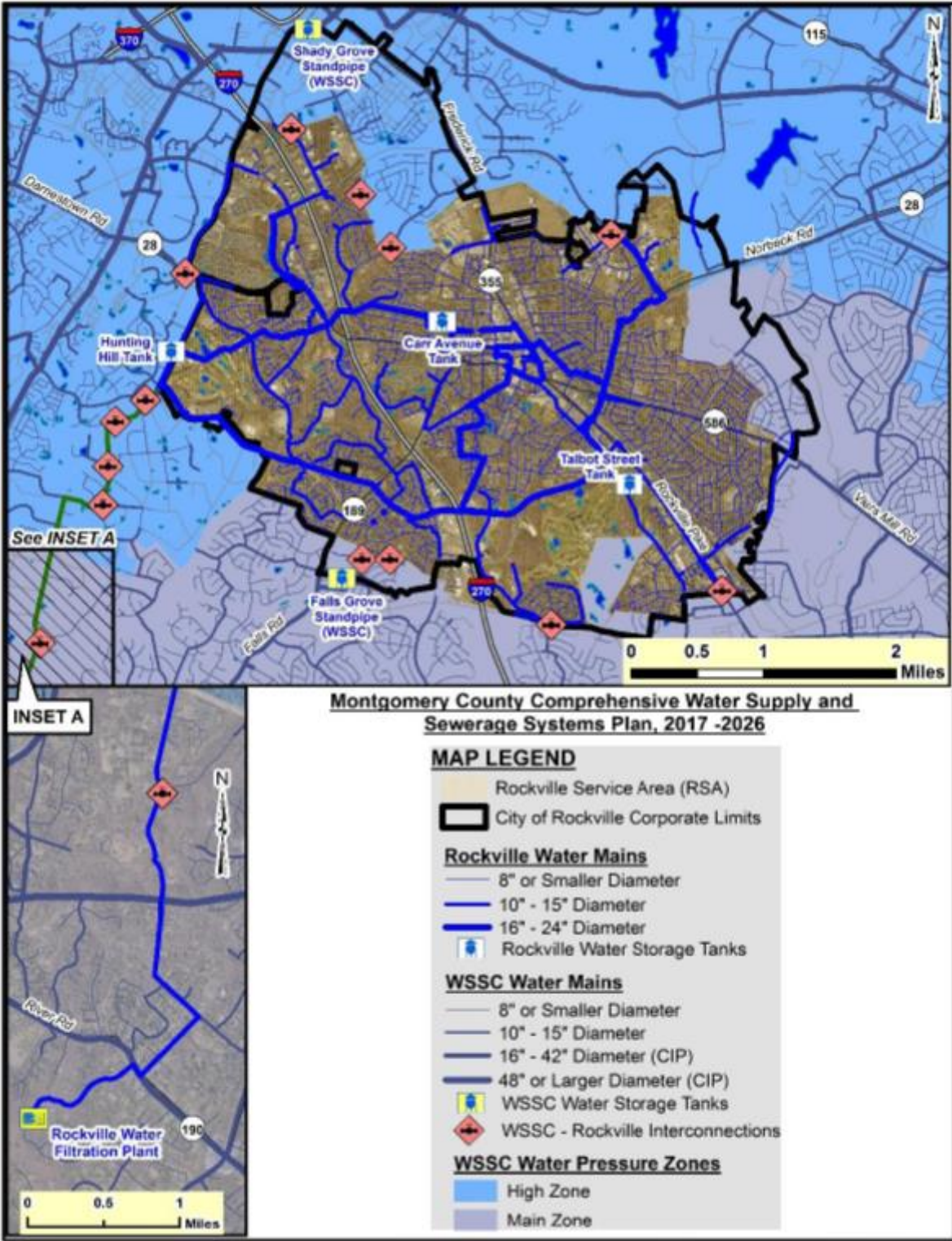
MCFRS

COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

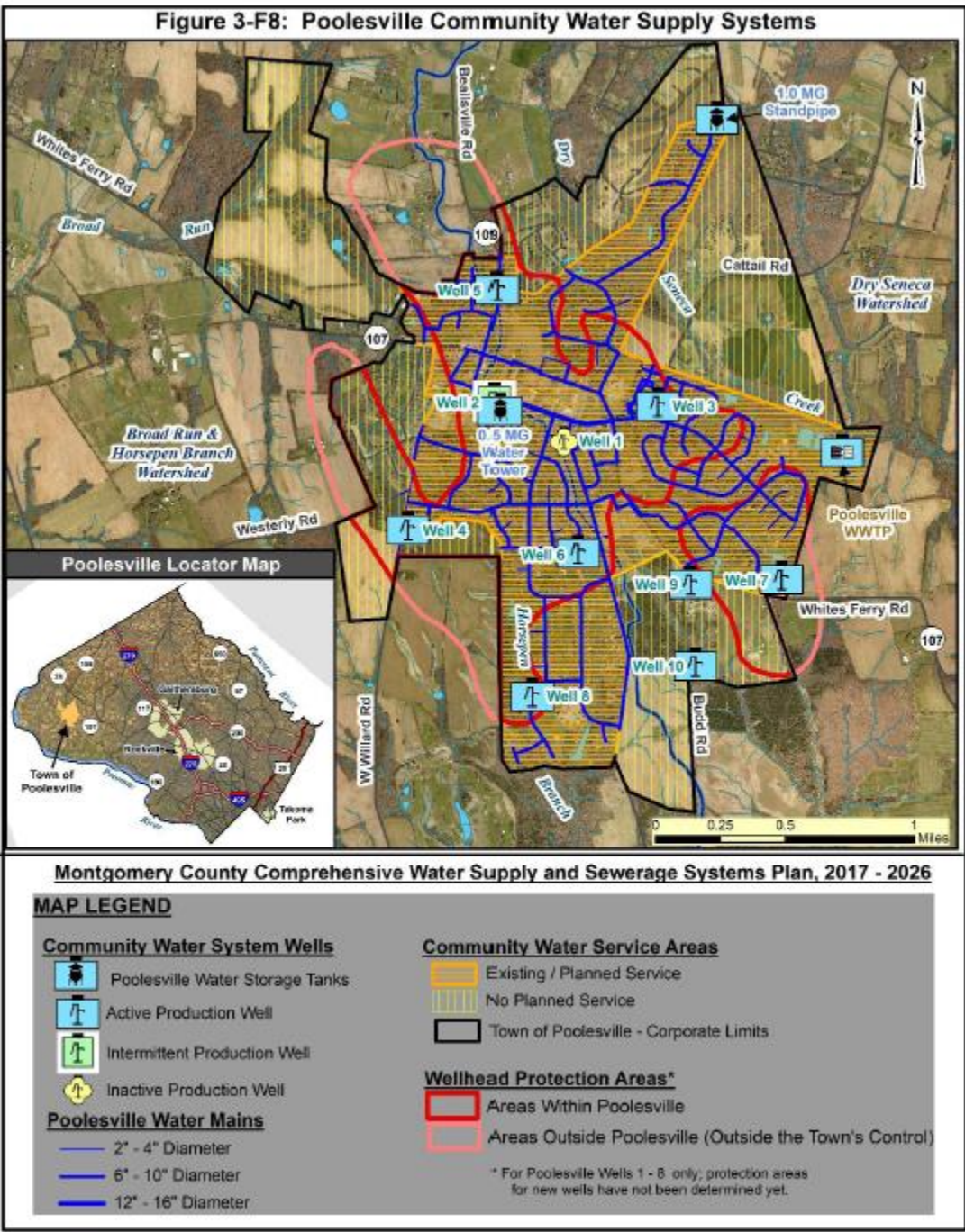
Examples of critical infrastructure by planning zone and countywide



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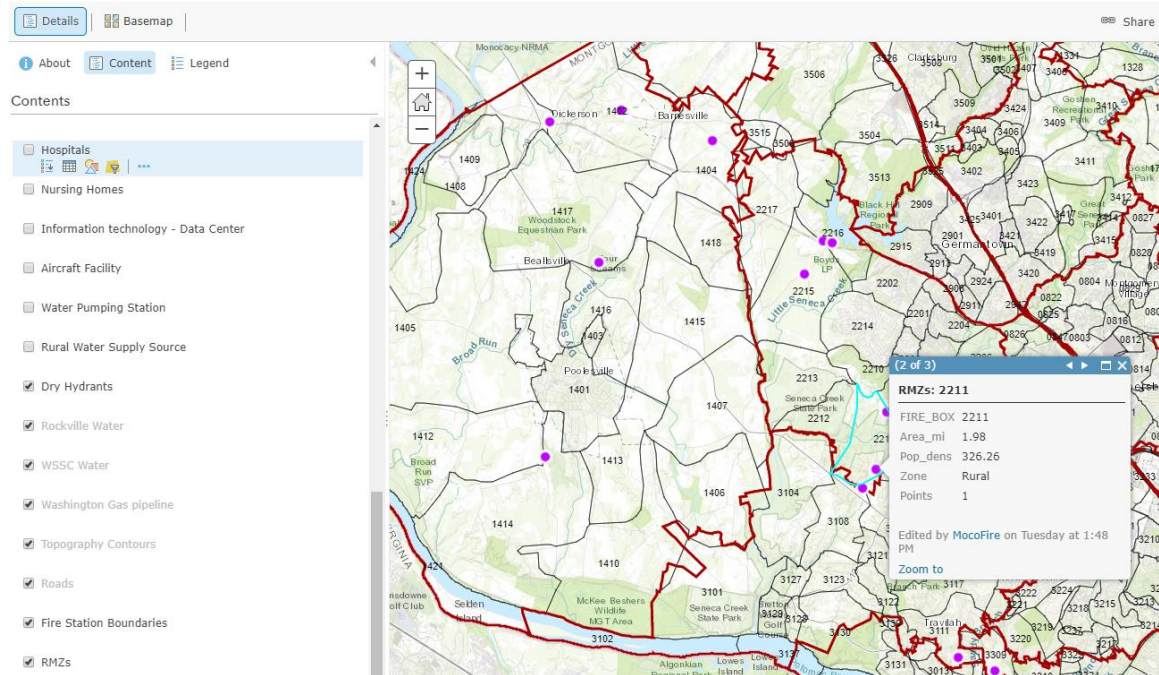
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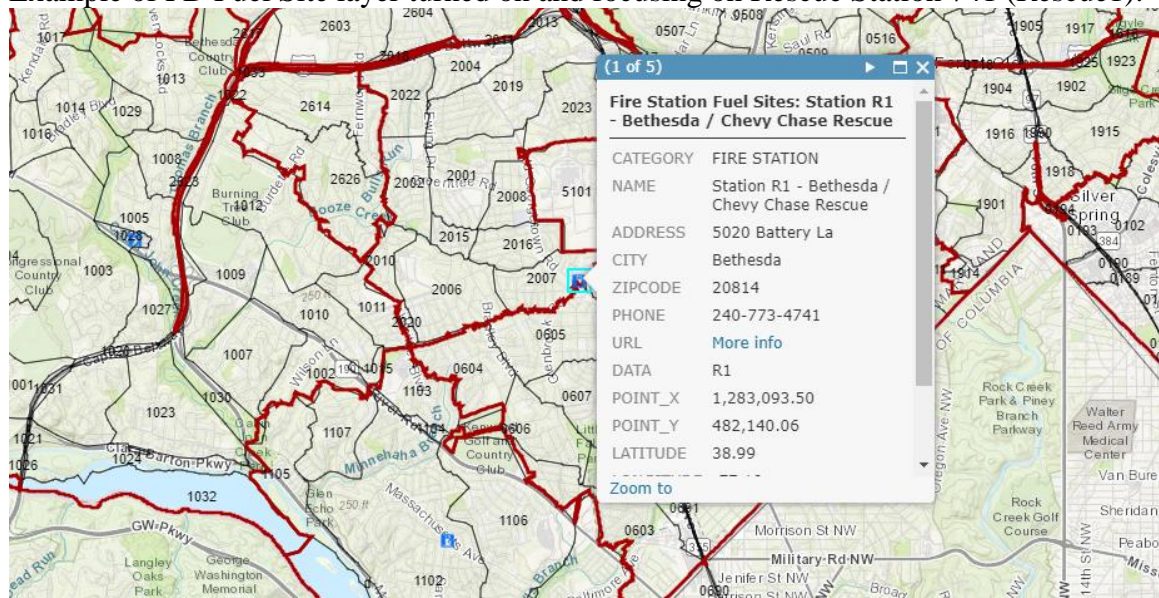
The MCFRS Geographic Information System (GIS) Specialist has created a critical infrastructure mapping system which has assisted in the analysis of how these infrastructure support emergency response within its risk management zones (RMZ).

Example with Dry Hydrant layer turned on and focusing on one in RMZ 2211:

ArcGIS Critical_infrastructure_map



Example of FD Fuel Site layer turned on and focusing on Rescue Station 741 (Rescue1):



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VI. Description of MCFRS Programs and Services

The Montgomery County (MD) Fire and Rescue Service (MCFRS), an accredited agency, is a full spectrum, all-hazards life safety department protecting over 1 million residents and many others who work and visit Maryland's most populous jurisdiction. MCFRS is a combination system (career/volunteer) in the suburban Washington, D.C. area, operating with an annual budget of about \$220 million dollars and protecting approximately 500 square miles. MCFRS annually handles over 120,000 emergency calls for service and is staffed by nearly 1300 career uniformed personnel and professional civilian staff and an equal number of volunteers, nearly half of whom are actively involved in emergency response.

MCFRS is mandated through Montgomery County Code Chapter 21 and specifically defined under Article I, § 21-1 (b) to achieve the following goals:

(1) Maximum Protection for Life and Property. Provide maximum cost-effective, equitable, and responsive services to all County residents and visitors, including reasonable maximum response times, effective fire and rescue incident supervision, adequate staffing, effective distribution of personnel and apparatus, and timely adaptation to changing service needs. Ensure that all organizations and participants comprising the fire, rescue, and emergency medical services share the responsibility for continuously improving their effectiveness and efficiency.

(2) Maximum Volunteer Participation. Maintain and expand volunteer participation in fire, rescue, and emergency medical service operations and in policy-making.

(3) Optimum Personnel Practices. Promote equity and harmony among County, local fire and rescue department, and volunteer personnel; continually improve the capabilities of all personnel; effectively manage personnel; and achieve job performance and personal conduct of the highest caliber by County, local fire and rescue department, and volunteer personnel.

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(4) Adequate Accountability. Account for service delivery, management practices, maintenance of all apparatus and facilities, and the use of public funds.

(5) Improved Operations and Administration. Minimize costs, including administrative overhead, apparatus, and other expenses; and effectively manage personnel, purchasing, maintenance, training, and other programs.

(6) Integration with local, County-wide, regional, State, and national emergency management plans. Plan and coordinate County fire, rescue, and emergency services with services provided by other government and private organizations to provide all needed services while minimizing duplication and conflict.

In an effort to meet the aforementioned mandated goals, and more specifically to achieve the first directive to provide maximum protection for life and property to all County residents and visitors, MCFRS provides the following programs and emergency response/public assistance services:

Community Outreach through the following programs:

- Safety in Our Neighborhood (SION)
- Risk Watch and Safe Kids
- Child Safety Seat Inspections
- Every Call/Every Alarm

The aforementioned programs, more granularly, provide for:

- Outreach services specifically targeting the aging and senior populations.
- Home fire safety visits.
- Smoke alarm assessments and offerings and installations for senior and low-income homeowners.
- “After the Fire” door-to-door safety/smoke alarm surveys in communities affected by a working fire.

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- Robust and nationally-recognized child car seat program.
- Elementary School programs featuring NFPA's Risk Watch Curriculum.
- Community emergency response team (CERT) program.
- Fire & life safety programs targeting at-risk communities.
- Mobile Integrated Healthcare Unit - home safety checks conducted in partnership with the Department of Health and Human Services, Aging and Disability Services and local hospitals targeting home-bound, vulnerable populations and frequent 911 callers.
- Seasonal fire and life safety risk public safety announcements and education:
 - ◆ Hot ash disposal
 - ◆ Child swimming pool safety
 - ◆ Candle safety
 - ◆ Carbon monoxide awareness
 - ◆ Clothes dryer lint and related fire risks
 - ◆ Space heater safety and awareness

The Community Outreach Section falls under the Volunteer and Community Services Division. As such, outreach efforts are many times coordinated with Local Volunteer Fire and Rescue Departments' outreach efforts within those stations' communities.

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Emergency Response and Public Assistance Services:

- Fire Suppression
- Emergency Medical Services
 - Advanced Life Support (ALS) first-responder and transport
 - Basic Life Support (BLS) first-responder and transport
 - Mass casualty
 - Non-emergency community care coordination outreach
- Hazardous Materials Assessment and Mitigation
- Technical Rescue
 - Confined Space
 - High-Angle
 - Trench
 - Building Collapse
- Water and Ice Rescue
 - Swift Water
 - Still Water
- Aircraft Rescue/Firefighting
- Fire & Explosives Investigations
 - Bomb Squad
 - Fire investigation
- Wildland Fire Services
- Urban Search and Rescue (FEMA asset)
- Public Assistance Services

MCFRS' core function/mission is succinctly defined within the [CountyStat website](#) as well as within the [MCFRS Master Plan](#) (see Section 2): To protect lives, property, and the environment with comprehensive risk reduction programs and safe, efficient, and effective emergency response provided by career and volunteer service providers representing Montgomery County's diverse population.

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Below the core function definition within the aforementioned website is a definition of emergency response applicable to the authority having jurisdiction and subsequently MCFRS:

- Response to fires to save lives and property
- Response to Advanced Life Support (ALS) incidents to save lives during life-threatening medical emergencies
- Response to Basic Life Support (BLS) incidents to treat and transport sick/injured persons
- Response to other “all-hazards” incidents

MCFRS provides emergency response staffing 24 hours per day and 365 days per year from 37 fire-rescue stations. These stations are strategically located throughout the County to provide an effective distribution of resources to meet emergency response needs. The location of many of these fire-rescue stations (i.e., those owned by local fire-rescue departments) were decided by local communities needing these services, through dedicated volunteer efforts and commitments, as part of the evolution of Montgomery County. The location of the newer County-owned and exclusively career-staffed fire-rescue stations were determined through processes that include a large-scale fire station location study and intensive growth projections and GIS response time and demand projection analysis.

All MCFRS career firefighters are basic life support (BLS) providers certified to the emergency medical technician (EMT) level and many are advanced life support (ALS) providers certified to the paramedic level. MCFRS qualified volunteer firefighters are also minimally certified as an EMT. The MCFRS system also integrates qualified EMS-only volunteers into its deployment model with EMTs and Paramedics.

MCFRS’ minimum daily staffing requirements to support emergency response and public service calls for assistance are 305 fire-rescue personnel.

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The current minimum daily staffing arrangement between career and local volunteer fire-rescue department (LFRD) providers are broken down between a weekday plan and a night and weekend plan.

The weekday career staffing compliment is 295 personnel, of which 35 members work “day-work” from 0700 hours to 1700 hours, whereas the balance works a 24-hour shift.

The weekday minimum LFRD staffing compliment is 10 members staffing the following units within the respective volunteer fire and/or rescue departments:

- Fire Station 15 (Burtonsville Volunteer Fire Department):
 - ◆ Three staffing heavy Rescue Squad 715
- Fire Station 26 (Bethesda Fire Department):
 - ◆ Two from Rescue Station 1 (Bethesda Chevy Chase Rescue Squad) staffing Ambulance 726
- Rescue Station 1 (Bethesda Chevy Chase Rescue Squad):
 - ◆ Three staffing heavy Rescue Squad 741
 - ◆ Two staffing Ambulance 741

The night and weekend career staffing compliment is 260 personnel and the **minimum LFRD staffing compliment** is 44 personnel.

MCFRS staffs the following resources to meet its emergency response and public service calls for assistance mandates from 35 fire stations, two rescue (heavy rescue & EMS-only) stations, and the Emergency Communication Center:

- 35 Class A fire engine companies. Of these, 33 are staffed daily with an officer and three firefighters, at least one of whom is a paramedic. The other two engines are staffed with an officer and two firefighters but will be upgraded to 4-person staffing, including a paramedic, in the 4th quarter of FY18.
- 16 aerial ladder truck/aerial tower companies. Of these, 15 are staffed daily with an officer and two firefighters and one is staffed daily with an officer and three fighters, at least one of whom is a paramedic.

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

- 6 heavy rescue squad companies, each staffed daily with an officer and two firefighters.
- 11 ALS paramedic (medic) transport units, each staffed daily with a career firefighter-paramedic and career firefighter-EMT.
- 30 BLS ambulance transport units, each staffed daily with two career firefighter-EMTs.
- 3 paramedic chase units, each staffed daily with one firefighter-paramedic or a volunteer non-fire suppression paramedic.
- 2 EMS duty officer vehicles, each staffed with one ALS career firefighter officer.
- 1 Safety Officer vehicle staffed with one career firefighter officer
- 5 Battalion Chief officer vehicles, each staffed with one certified career battalion chief fire officer.
- 1 Duty Operations Chief vehicle, staffed with one certified career assistant chief officer.
- Two Fire Investigator/Explosive Unit officers.
- One Master Firefighter Staffing Specialist.
- Seven qualified Emergency Communications Center members, including one captain, one lieutenant, two master firefighters, and three firefighters.
- 1 mobile health unit for non-emergency patient intervention (M-F, daytime w/OT paramedic; not part of minimum staffing).

In addition to these front-line and daily-staffed apparatus, many additional specialized resources/units are also strategically placed throughout the County and within applicable fire-rescue stations. The following unit types, when needed through an initial response or as a special-called resource, are staffed with existing on-duty career and/or volunteer fire-rescue personnel: brush engines, brush trucks, rescue engines, boats, utility task vehicles (UTV), hazmat units and support units, medical ambulance buses and support units, decontamination units, air units, mobile command units

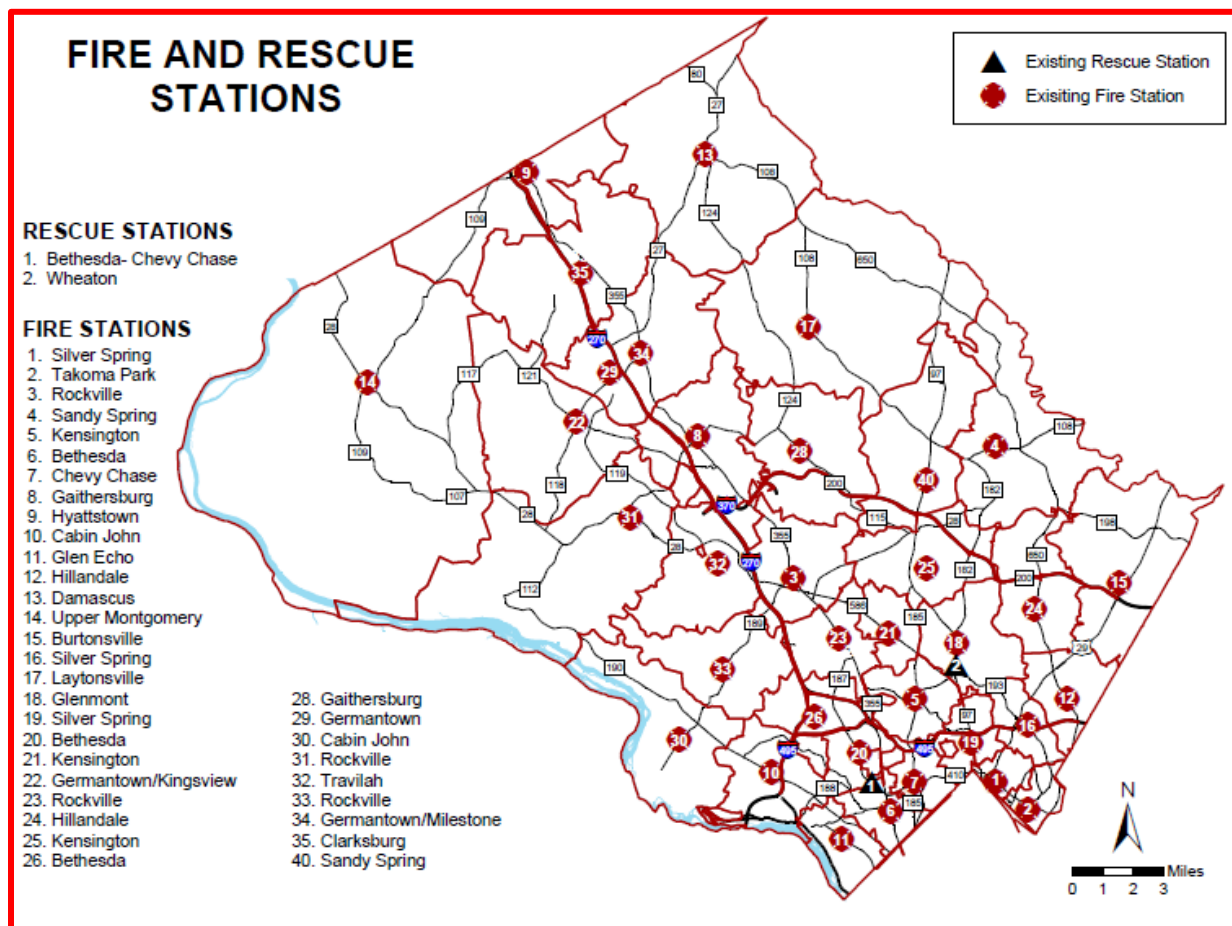
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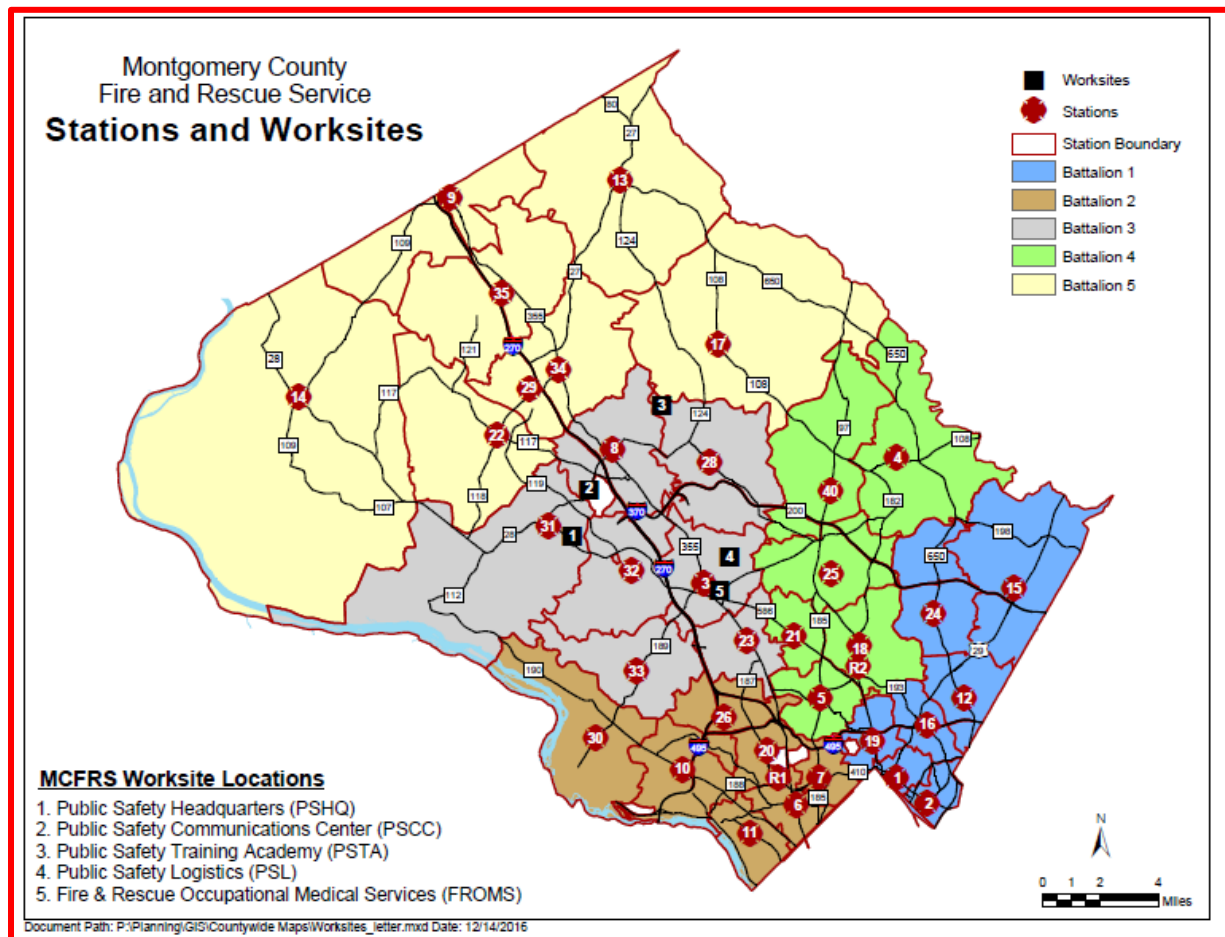
The response deployment for many of the aforementioned specialized pieces of apparatus rely on the flexibility of the MCFRS system, as these units are generally not staffed with dedicated practitioners. As an example, if swift water boats are due on a special-risk swift water rescue assignment and there are no qualified volunteer members in the particular fire station, qualified career and/or volunteer members staffing an engine, an aerial, or an EMS unit would respond with the boats to the incident. The flexibility within the system allows for the appropriate specialized resource to respond. However, the risk is, without dedicated staffing when stacked incidents occur in a station response area, the unit that was staffed (e.g., aerial unit), cannot respond due to the personnel taking the specialized unit(s) such as boat(s).

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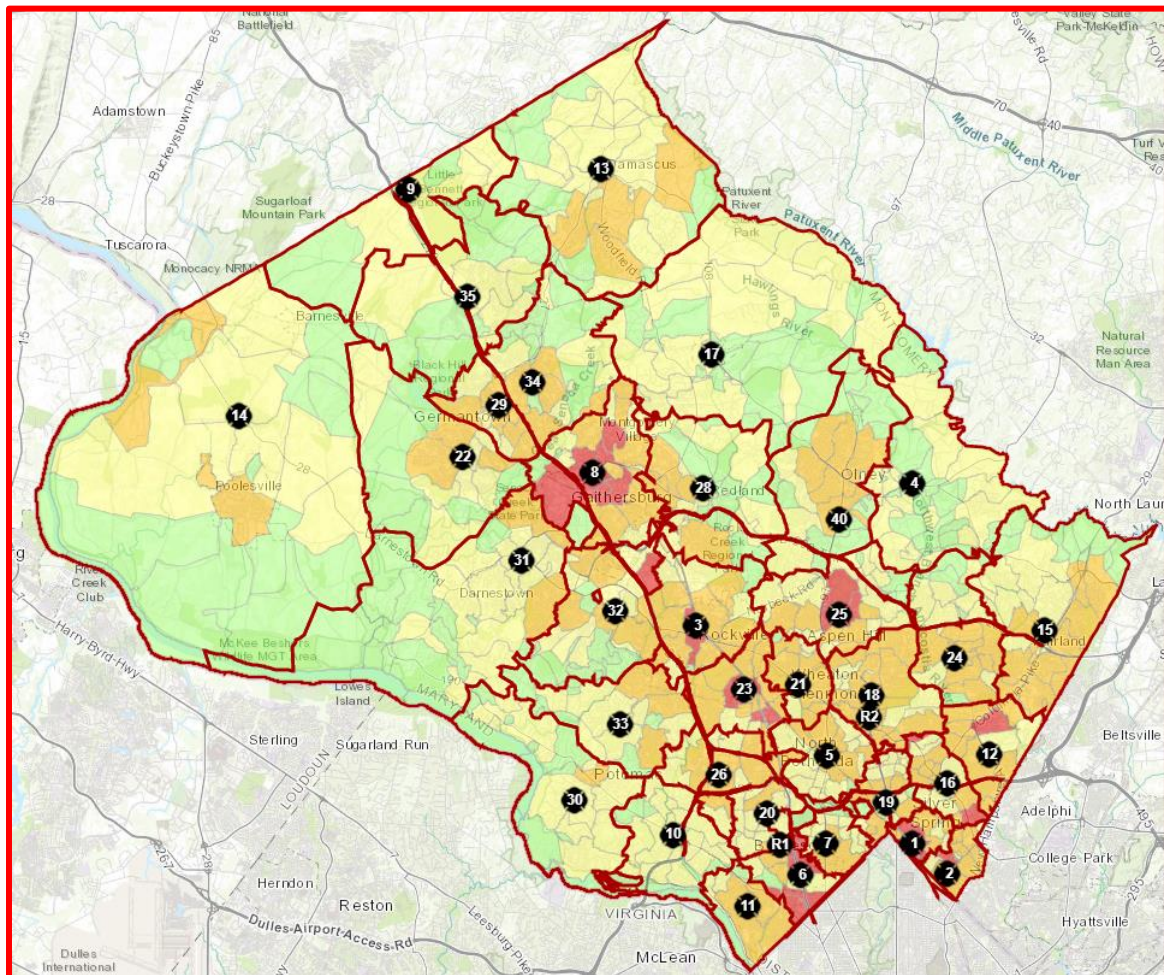


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VII. MCFRS All-Hazard Risk Assessment and Response Strategies [Criterion 2B]



- ☒ 2017 RMZ Risk - Fire Risk by RMZ
- ☐ 2017 RMZ Risk - EMS Risk by RMZ
- ☐ 2017 RMZ Risk - Bomb Squad Risk by RMZ
- ☐ 2017 RMZ Risk - Technical Rescue Risk by RMZ
- ☐ 2017 RMZ Risk - ARFF Risk by RMZ
- ☐ 2017 RMZ Risk - Water/Ice Risk by RMZ
- ☐ 2017 RMZ Risk - Hazmat Risk by RMZ
- ☐ 2017 RMZ Risk - Population Density Zone
- ☐ 2017 RMZ Risk - Median Household Income
- ☐ 25 YO that is HS graduate or more
- ☐ 2017 RMZ Risk - % Population 65+

Legend

2017_RMZ_Risk - Fire Station Points



2017_RMZ_Risk - Fire Station Boundaries



2017_RMZ_Risk - Fire Risk by RMZ

- Low
- Moderate
- High
- Special

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

MCFRS Methodology: Identifying, Assessing, Categorizing, Classifying Risks[CC 2B.1]

MCFRS has been an accredited fire-rescue department since 2007. As a critical and required component to achieving an accredited status, a community risk assessment (CRA) was conducted then (2007), and an updated CRA was conducted again during the 2012-2013 reaccreditation efforts.

In 2017, as MCFRS moved to a candidate status while seeking reaccreditation again in 2018, another CRA was conducted. The updated and improved methodology used to design this CRA was based on guidance provided within the Center for Public Safety Excellence's 6th edition Community Risk Assessment: Standards of Cover manual.

The identified community risks assessed are based on those that the Montgomery County Fire Rescue Service, an all-hazard fire-rescue department, has been charged by the authority having jurisdiction to respond to and mitigate. These risk programs are listed within the #1 MCFRS Department goal and are documented within the [FY2018 Strategic Plan](#) on page 31 (pasted below).

To maintain our operational readiness at all times for an all-hazards mission and response capability, including emergency medical services, fire suppression, technical rescue, water/ice rescue, aviation fire-rescue, hazardous material, and explosive device emergency services.

The methodology begins with data collection and mining from multiple sources (e.g., MCFRS data warehouse and various databases, U.S. Census, County Office of Emergency Management & Homeland Security, zoning database, Maryland Department of Assessment and Taxation, etc.) concerning the following topics and characteristics:

- incident frequency/count
- 90th percentile response time
- fire loss (dollar loss)
- number of high-rises

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- demographics: population density, age and education level of residents, median household income
- zoning classifications
- housing stock that is sprinklered/not sprinklered
- number of health care facilities
- number of SARA-Title III hazmat facilities
- location of major highways, railroads and pipelines
- location of airports, helipads and airstrips
- location of bodies of water: rivers, reservoirs, lakes and ponds
- roadways/intersections prone to flash flooding

Data that has been collected/mined is then aggregated and analyzed for use in risk categorization, risk scoring, and mapping of levels of risk throughout the County. A risk scoring system developed by the Accreditation Manager and the Planning & Accreditation Section Manager is used by the GIS Manager in preparing risk maps. The scoring system is comprised of several individual scoring systems tailored specifically to each category of risk present within the County, as a single system applicable to all risk categories would not be practical or effective.

Using the multiple types of risk-related data and the risk scoring system, the GIS Manager performs the required geocoding and analytical processes to create a set of color-coded countywide maps displaying levels of risk by risk management zones-RMZs (i.e., fire box areas) throughout the County. A separate map is created for each risk category: Fire, EMS, Hazmat, Water /Ice, Bomb, Aviation, and Technical Rescue. The online maps allow the user to drill down to individual RMZs to view specific data for each RMZ related to the risk category. For example, the data displayed for each RMZ within the EMS risk map includes: area (in sq. mi.); population density (residents/sq. mi.); MCFRS population zone (metropolitan, urban, suburban or rural); number of ALS1, ALS2 and BLS incidents/year; total EMS incidents/year; and risk scoring points assigned for number/type of EMS incidents, population density, senior population (residents ≥ 65

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

years of age), number of health care facilities, and education level of residents (high school graduates and above).

The following risk scoring system was developed and tailored for each Montgomery County risk category and used to create the GIS analysis for this community risk assessment. Incident frequency, fire loss, and response time data used was that between fiscal year (FY) 2013 and FY2017 (five-years).

Fire Risk

Category Description	Hazard Description	Hazard Points
Incident Frequency: Special, High, & Moderate Risk Structure Fires & Moderate & Low Risk Fire Incidents (Grp. 4 "structure fire" & "structure fire hazmat" + "A1F" & "A2-3" & "FFA")	# of dispatched reported structure fires, moderate risk fire incidents, and low risk fire incidents reported in box areas (RMZs)	1 - 20 = 1 point 21 - 40 = 2 points 41 - 60 = 3 points 61 + = 4 points
Total Structure Fire Loss (Grp. 4 "Structure Fire" & Structure Fire Hazmat")	Total Fire Loss from all structure fires documented by each incident within each box area (RMZ)	\$1 - \$49,999 = 1 pt. \$50,000 - \$249,999 = 2 pts. \$250,000 + = 3 pts. (per incident x points within each RMZ)
90th Percentile 1st Engine Travel Time (FFA Top Program)	1st arriving engine travel time at the 90th percentile to all reported fire full assignment structure fires (not including upgraded incidents) within each box area (RMZ)	00:00 - 04:00 mins. = 0 pts. 04:01 - 06:00 mins. = 1 pt. 06:01 - 10:00 mins. = 2 pts. 10:01 + minutes = 3 pts.
90th Percentile Total Response Time for the ERF for FFA-HY (Grp. 3)	90th percentile total response time for the ERF in dispatched reported fire full assignment structure fires in hydrated box areas (RMZs) (not including upgraded incidents)	09:00 - 16:00 mins. = 0 pts. 16:01 - 23:00 mins. = 1 pt. 23:01 - 30:00 mins. = 2 pts. 30:01 + minutes = 3 pts.

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Risk Score Matrix (continued)		
90th Percentile Total Response Time for the ERF for FFA-NH (Grp. 3)	90th percentile total response time for the ERF in dispatched reported fire full assignment structure fires in non-hydranted box areas (RMZs) (not including upgraded incidents)	17:00 - 23:00 mins. = 0 pts. 23:01 - 29:00 mins. = 1 pt. 29:01 - 36:00 mins. = 2 pts. 36:01 + minutes = 3 pts.
Population/square mile within a box area (RMZ)	Estimated population within the box area calculated on a percentage of the census block that falls within the box area (RMZ)	1 - 10,000 = 1 pt. 10,001 - 15,000 = 2 pts. 15,001 - 20,000 = 3 pts. 20,001 + = 4 pts.
Percentage of population within a box area (RMZ) 65 years or older	Percent of estimated population within the box area (calculated on a percentage of the census block) that are 65 Y.O. or older	1% - 10 % = 1 pt. 10.1% - 20% = 2 pts. 20.1% - 30% = 3 pts. 30.1% + = 4 pts.
Median Household Income within a box area (RMZ)	Median Household Income within the box area (calculated on a percentage of the census block)	\$125,001 - \$200,000 = 1 pt. \$70,001 - \$125,000 = 2 pts. \$50,001 - \$70,000 = 3 pts. \$0 - \$50,000 = 4 pts.
Percentage of population ≥ 25 YO within a box area (RMZ) that's a HS graduate or more	Percent of estimated population ≥ 25 YO within the box area (calculated on a percentage of the census block) that are at least a HS graduate	94.1% - 95 % = 1 pt. 90.1% - 94% = 2 pts. 70.1% - 89.9% = 3 pts. 1% - 70% = 4 pts.
Predominant residential zoned housing stock within a box area (RMZ) is sprinklered	SFH's built beginning in 2005 & garden apts. and townhouses built beginning in 1989 shall be considered sprinklered.	Sprinklered = 0 points Not sprinklered = 3 points
Number of high-rise buildings within a box area (RMZ)		1 - 2 = 2 points 3 - 4 = 4 points 5 - 7 = 6 points ≥8 = 8 points

MCFRS
COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

EMS Risk

Category Description	Hazard Description	Hazard Points
Incident Frequency to Low Risk BLS call types in each box area (RMZ)	# of dispatched BLS incidents within box areas (RMZs)	Each BLS incident = 1 point
Incident Frequency to Moderate Risk ALS1 call types in each box area (RMZ)	# of dispatched ALS1 incidents within box areas (RMZs)	Each ALS1 incident = 3 points
Incident Frequency to High Risk ALS2 call types in each box area (RMZ)	# of dispatched ALS2 incidents within box areas (RMZs)	Each ALS2 incident = 5 points
90th Percentile 1st arriving unit (paramedic) Total Response Time (Grp. 2)	1st arriving paramedic total response time at the 90th percentile to all dispatched ALS incidents within each box area (RMZ)	00:00 - 06:30 mins. = 0 pts. 06:31 - 09:00 mins. = 1 pt. 09:01 - 12:00 mins. = 2 pts. 12:01 + mins = 3 pts.
90th Percentile Total Response Time for the ERF ALS2 (Grp. 3)	90th percentile total response time for the ERF to dispatched ALS2 incidents in box areas (RMZs)	00:01 - 10:30 mins. = 0 pts. 10:31 - 15:00 mins. = 1 pt. 15:01 - 20:00 mins. = 2 pts. 20:01 + minutes = 3 pts.
Population /square mile within a box area (RMZ)	Estimated population within the box area calculated on a percentage of the census block that falls within the box area (RMZ)	1 - 10,000 = 1 pt. 10,001 - 15,000 = 2 pts. 15,001 - 20,000 = 3 pts. 20,001 + = 4 pts.
Percentage of population within a box area (RMZ) 65 years or older	Percent of estimated population within the box area (calculated on a percentage of the census block) that are 65 Y.O. or older	1% - 10 % = 1 pt. 10.1% - 20% = 2 pts. 20.1% - 30% = 3 pts. 30.1% + = 4 pts.
Median Household Income within a box area (RMZ)	Median Household Income within the box area (calculated on a percentage of the census block)	\$125,001 - \$200,000 = 1 pt. \$70,001 - \$125,000 = 2 pts. \$50,001 - \$70,000 = 3 pts. \$0 - \$50,000 = 4 pts.

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EMS Risk Score Matrix (continued)		
Percentage of population ≥ 25 YO within a box area (RMZ) that's a HS graduate or more	Percent of estimated population ≥ 25 YO within the box area (calculated on a percentage of the census block) that are at least a HS graduate	94.1% - 95 % = 1 pt. 90.1% - 94% = 2 pts. 70.1% - 89.9% = 3 pts. 1% - 70% = 4 pts.
Number of assisted living health care facilities within a box area (RMZ)		1 - 3 = 1 point 4 - 5 = 2 points 6 - 8 = 3 points ≥ 9 = 4 points

Bomb Squad/Explosive Risk

Category Description	Hazard Description	Hazard Points
Incident Frequency: All dispatched Bomb Squad incidents (Grp. 2 "Bomb Squad") where at least one unit arrived (Crystal reports Top Program "BOMB" and filtered by First Arriving Unit TRT	Total # of bomb squad incidents dispatched and where at least one unit arrived in station response areas	Each incident is worth 1 point

Technical Rescue Risk

Category Description	Hazard Description	Hazard Points
Incident Frequency: All dispatched Technical Rescue incidents (Grp. 2 "Technical Rescue"	Total # of technical rescue incidents dispatched in station response areas	0 - 1 = 0 points 2 - 3 = 1 points 4 + = 2 points

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Aircraft Rescue Firefighting Risk

Category Description	Hazard Description	Hazard Points
Incident Frequency Dispatched Aircraft Emergency incidents (Grp. 2 "Aircraft Rescue Firefighting")	Total # of aircraft emergency incidents dispatched in box areas (RMZs)	Each incident = 1 point
Location of Airpark and Airfield	Box areas (RMZs) that encompass Montgomery Airpark and Davis Airfield	3 points for each location
Location of Helipads	Box areas (RMZs) that encompass known helipads	1 point for each helipad location
Location of private airstrips	Box areas (RMZs) that encompass known private airstrips	2 points for each private airstrip

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Water and Ice Rescue Risk

Category Description	Hazard Description	Hazard Points
Incident Frequency All dispatched Water/Ice Rescue incidents (Grp. 2 "Water Ice Rescue")	Total # of water/ice rescue incidents dispatched in box areas (RMZs)	1 - 2 = 1 points 3 - 5 = 2 points 6 - 10 = 3 points 11 - 20 = 4 points 21 + = 5 points
Large bodies of water	Large bodies of water within box areas (RMZ) Potomac River, Blackhills & Clopper Lakes, Rocky Gorge & Tridelphia Reservoirs	Potomac River and C & O Canal = 4 points Others noted: 2 points
Intersections Subject to Periodic Flooding	Specific intersections within box areas (RMZs) prone to periodic flooding	Each intersection = 1 point
Storm Water Management Ponds	Each storm water management pond within each box area (RMZ)	Storm Water Management Pond = 1 point

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Hazardous Materials Response Risk

Category Description	Hazard Description	Hazard Points
Incident Frequency All dispatched Hazmat incidents (Grp. 2 "Hazardous Materials")	Total # of hazmat call types dispatched in box areas (RMZs)	0 - 1 = 0 points 2 - 3 = 1 points 4 - 6 = 2 points 7 - 9 = 3 points 10 + = 4 points
SARA Title 3 Facilities within each box area	Total # of SARA Title 3 facilities within box areas (RMZs)	1 - 2 = 1 points 3 - 4 = 2 points 5 - 6 = 3 points 7 - 8 = 3 points 8 + = 4 points
Each Railroad Box Area		Railroad Box = 1 point
Each Highway Box Area		Highway Box = 1 point
Each Box that a pipeline runs through		Pipeline Box Area = 1 point

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Historical and Future Probability of Service Demands by RMZ [2B.2]

MCFRS identifies and documents historical service demand frequency and future probability of service demand, by service type, on an as-needed basis or at least annually. This data is queried and/or calculated, as well as documented, by fire station response area (i.e., first-due area).

Historical demand frequency is queried using a Crystal Report prepared by the MCFRS IT Section that is tied to the department's data warehouse. The user selects the service type (i.e., emergency program) and time frame of interest – typically a fiscal year or calendar year – and then selects the station response area(s) of interest.

Future service demand is based upon examining past annual demand to identify a trend that is expected to carry forward. The process begins with calculating average percent change over the most recent 5-year period (e.g., FY2013-FY2017) which is then used to calculate a projected service demand for the next year (i.e., FY2018, if using FY13-17 for the average percent change). For example, if the average percent change for ALS1 incidents is found to be 1.4%/year, then the projected demand for the upcoming year would be the service demand frequency for the most recent year plus a 1.4% increase. The service demand for the out years (e.g., 2, 3, 4 and 5 years into the future) can be calculated similarly using the most recent five years of data which will be a combination of historical (actual) service demand frequency and projected demand frequency. MCFRS has automated the mathematical process of calculating projections to make projections easy and fast to calculate.

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The following chart represents countywide historic and projected future emergency programmatic service demands by program. An analysis of non-emergency public service call load is also included.

FY2018 - FY2020 INCIDENT COUNT PROJECTIONS

Program - Group 2	Avg %Δ FY13-17	FY17 Count	FY18 Proj.	Avg %Δ FY14-18	FY19 Proj.	Avg %Δ FY15-19	FY20 Proj.
ALS	3.4%	40,406	41,760	4.9%	43,806	4.0%	45,536
BLS	3.4%	51,936	53,702	3.6%	55,635	3.9%	57,777
FFA*	-11.6%	617	545	-13.2%	473	-18.4%	386
Adaptive	2.9%	15,844	16,303	4.0%	16,955	4.2%	17,667
Hazmat	2.3%	165	169	-1.4%	167	-5.2%	158
Water-ice	8.6%	81	90	-1.7%	88	-1.5%	87
Tech Rescue	22.3%	13	16	38.1%	22	22.5%	27
ARFF	150.0%	1	2	75.0%	3	12.5%	3
Bomb	4.3%	546	569	4.4%	594	8.2%	643
Service Call	-2.0%	7511	7359	-4.6%	7021	-6.6%	6558

*FFA count decreased beginning in FY16 due to some FFAs being dispatched instead as "light smoke conditions" (i.e., a reduced response adaptive call type).

MCFRS' robust data warehouse and Crystal reporting tools allows for additional data retrieval and a more granular analysis to help determine more localized historical demand and future projections.

MCFRS
COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Trend CY13 - CY¹⁶

Category	CY2013	CY2014	CY2015	CY2016	% Change
Fire	14,843	15,729	16,571	17,388	4.9
EMS	83,794	86,378	90,298	94,514	4.7
Other	9,217	10,258	9,557	8,395	-12.2
Total	107,854	112,365	116,426	120,297	3.3

Category	CY2013	CY2014	CY2015	CY2016	% Change
ALS1	28,587	30,567	32,021	33,602	4.9
ALS2	5,207	5,316	5,756	5,754	0.0
BLS	46,369	47,206	49,147	51,996	5.8
Fire Full	985	1,039	1,030	569	-44.8
Fire Adaptive	13,242	14,097	14,919	16,047	7.6
Service Call	8,212	9,303	8,598	7,449	-13.6
Mutual Aid	4,322	3,940	4,073	4,000	-1.8
Other	930	897	882	880	-0.3

Last updated October 31st 2017

21

Source: [2017 Oct. Operations Division Dashboard for Quarterly Leadership Briefing](#)

Trend CY13 – CY¹⁶

Annual Transports

• 2013	63,566	
• 2014	66,741	4.8%
• 2015	69,268	3.7%
• 2016	71,577	3.3%

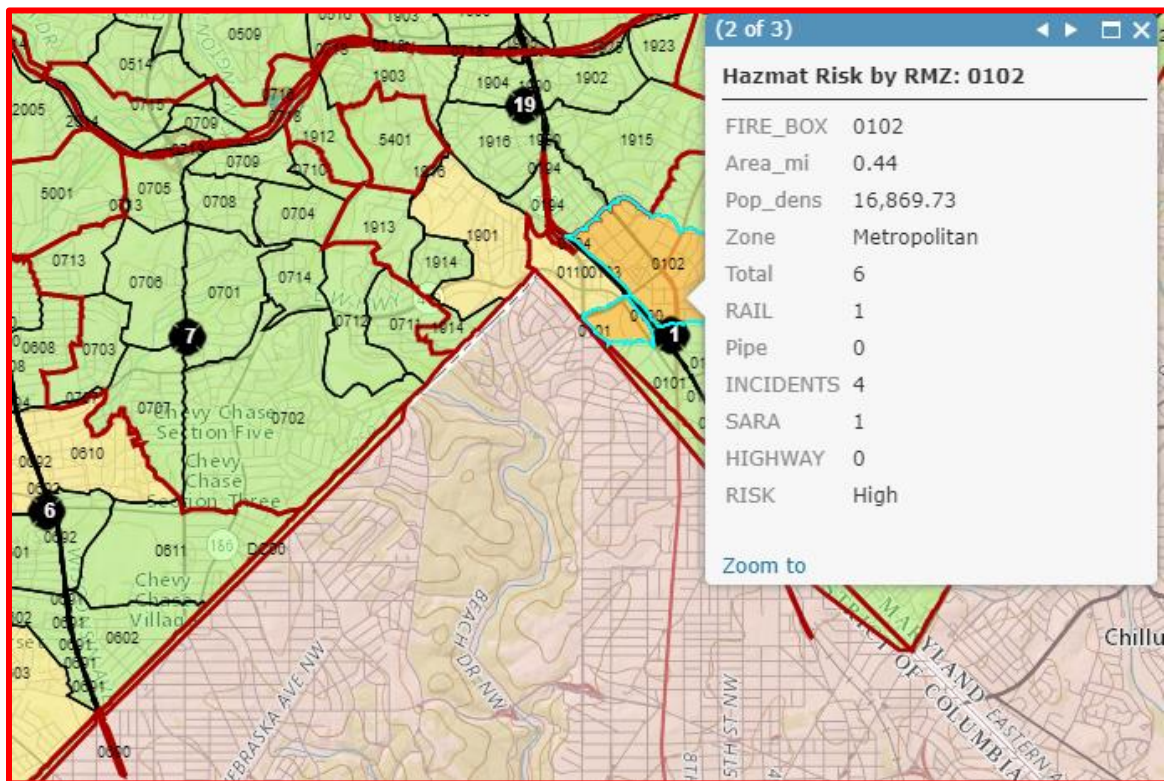
Last updated October 31st 2017

22

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

RMZ Risk Identification, Analysis, Categorization & Classification Methods [CC 2B.4]

As discussed in the Methods for Organizing Response Areas into Geographical Planning Zones [CC 2A.3] section of this CRA/SOC manual, MCFRS utilizes its fire station box areas and its more-granular risk management planning zones (RMZ). Through the processes described in the Methodology of Identifying, Assessing, Categorizing, and Classifying Risks [CC 2B.1] section, each of the MCFRS service delivery programs have been assigned an appropriate class of risk within each RMZ.



The above screenshot is from the MCFRS ARC GIS Community Risk Assessment online map viewer drilling down into RMZ 0102 in Silver Spring for Hazardous Materials emergencies risk. Displayed are the square miles of the RMZ, the population density per square mile of the RMZ, the density zone designation (Metropolitan), the points assigned for applicable hazmat risk within the RMZ (SARA facility, freight rail line, and historic hazmat incidents within the RMZ), and the final risk class for hazmat (high). The chart on the following page provides the reader an understanding of MCFRS initial dispatch call types linked to risk class.

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

<p>Special Risk (SR)</p> <ul style="list-style-type: none"> • Report of a large airplane (5 or > soles) on fire or crashed anywhere (ARFF) • Bomb Squad special risk responses including confirmed explosive device incidents • Smoke in a house, building, school, apartment, garage, barn, etc. in a non-hydranted box area • Reported fire in a house, building, school, apartment, garage, barn, etc. in a non-hydranted box area • Reported smoke or fire in a high-rise building, apartment, office, etc. • Hazmat box alarms for a report of a building fire involving hazmat or a 2-inch or > high pressure natural gas line break; outside or inside • All technical rescue responses • Swiftwater Potomac River emergencies 	<p>High Risk (HR)</p> <ul style="list-style-type: none"> • Smoke in a house, building, school, non-high-rise apartment, garage, barn, etc. • Reported fire in a house, building, school, non-high-rise apartment, garage, barn, etc. • Report of a small airplane (4 or < soles) on fire or crashed anywhere (ARFF) • ALS2 EMS incidents including ALS2 MV Crash with or without reported entrapment • Bomb Squad high risk responses including creditable suspicious and unattended packages/devices • Reported train/metrorail crash/derailment/fire • Hazmat inhalation emergencies including CO alarms with symptomatic patients • Stillwater Potomac River emergencies or incidents involving White's Ferry
<p>Moderate Risk (MR)</p> <ul style="list-style-type: none"> • Inside contained appliance fire (dryer, oven, etc.) • Report of light smoke in a building • Inside odor of smoke • Inside natural gas leak • Inside electrical short circuit • Detached shed fire • Large vehicle fire • Malfunctioning furnace • ALS1 EMS incidents including ALS1 MV Crash with or without reported entrapment • Bomb Squad moderate risk responses including suspicious and unattended packages • Hazmat releases not involving fire; including white powder responses • Inland water/ice emergency; not including swimming pool, bathtub, etc. 	<p>Low Risk (LR)</p> <ul style="list-style-type: none"> • Automobile fires • Brush, grass, leaf, field fire • Outside trash, dumpster fires • Outside transformer fire • Home automatic or commercial fire alarms, local alarm bells • Outside natural gas leaks & small fuel spills • Outside electrical short circuit • Citizen lock-out with hazard (food on stove, baby locked inside, etc.) • Outside smoke or odor investigation • Stalled elevator with people on board • BLS EMS responses including BLS motor vehicle crash • Metrorail arcing insulator issue • Public service call (performance not measured) Examples: <ul style="list-style-type: none"> ○ Assist citizen off the floor ○ Water leaking from an above apartment ○ Citizen lock-in ○ Tree down blocking the roadway ○ CO alarm with asymptomatic patients

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

The following table displays the risk classification for each MCFRS service delivery program category within each planning zone (RMZ/Box Area).

RMZ	Fire	EMS	Bomb	Tech Rescue	ARFF	Water	Hazmat
0101	Special	Moderate	Low	Low	Low	Low	Low
0102	Special	High	Special	Moderate	Low	Low	High
0103	High	Moderate	Low	Low	Low	Low	Low
0104	High	High	Low	Low	Low	Low	Low
0105	Moderate	Moderate	Low	Low	Low	Low	Low
0106	High	High	Low	Low	Low	Low	Low
0107	High	Moderate	Low	Low	Low	Low	Low
0108	Moderate	High	Low	Low	Low	Low	Low
0110	High	Moderate	Low	Low	Low	Low	Moderate
0180	Low	Moderate	Low	Low	Low	Low	Low
0181	Low	Moderate	Low	Low	Low	Low	Low
0182	Low	Moderate	Low	Low	Low	Low	Low
0185	Low	Moderate	Low	Low	Low	Low	Low
0186	Low	Moderate	Low	Low	Low	Low	Low
0187	Low	Moderate	Low	Low	Low	Low	Low
0188	Low	Moderate	Low	Low	Low	Low	Low
0189	Low	Moderate	Low	Low	Low	Low	Low
0190	Low	Moderate	Low	Low	Low	Low	Low
0191	Moderate	Moderate	Low	Low	Low	Low	Low
0192	Low	Moderate	Low	Low	Low	Low	Low
0193	Moderate	Moderate	Low	Low	Low	Low	Low
0194	Low	Moderate	Low	Low	Low	Low	Low
0201	Moderate	High	Low	Low	Moderate	Low	Low
0202	High	Moderate	Low	Low	Low	Low	Low
0203	High	High	Low	Low	Low	Low	Low
0204	High	High	Low	Low	Low	Low	Low
0205	High	High	Low	Low	Low	Moderate	Low
0206	High	High	Low	Low	Low	Low	Low
0207	High	High	Low	Low	Low	Low	Low
0208	High	High	Low	Low	Low	Low	Low
0209	Special	High	Low	Low	Low	Low	Low
0210	Moderate	Moderate	Low	Low	Low	Low	Low
0213	Moderate	High	Low	Low	Low	Low	Low
0214	Moderate	High	Low	Low	Low	Low	Low
0290	Low	Moderate	Low	Low	Low	Low	Low
0291	Low	Moderate	Low	Low	Low	Low	Low

MCFRS

COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

RMZ	Fire	EMS	Bomb	Tech Rescue	ARFF	Water	Hazmat
0292	Low	Moderate	Low	Low	Low	Low	Low
0294	Low	Moderate	Low	Low	Low	Low	Low
0301	High	Moderate	Low	Low	Low	Low	Low
0302	High	High	Low	Moderate	Low	Low	Low
0303	Low	Moderate	Low	Low	Low	Low	Low
0304	Moderate	Moderate	Low	Low	Low	Low	Low
0305	Moderate	Moderate	Low	Low	Low	Low	High
0306	High	High	Low	Moderate	Low	Low	Low
0307	High	High	Low	Moderate	Low	Low	High
0308	High	Moderate	Low	Low	Low	Low	Low
0309	High	High	Low	Low	Low	Low	Low
0310	Low	High	Low	Low	Low	Low	Low
0311	High	High	Low	Low	Low	Low	Low
0312	Moderate	Moderate	Low	Moderate	Low	Low	Moderate
0314	Moderate	Moderate	Low	Low	Low	Low	Low
0317	Moderate	Moderate	Low	Low	Low	Low	Low
0319	High	Moderate	Low	Moderate	Low	Low	High
0320	Moderate	Moderate	Low	Moderate	Low	Low	Low
0321	Special	High	Moderate	Low	Low	Low	Moderate
0324	Low	Moderate	Low	Low	Low	Low	Low
0327	Low	Moderate	Low	Low	Low	Low	Low
0328	Low	High	Low	Low	Low	Low	Low
0331	Moderate	Moderate	Low	Low	Low	Low	Moderate
0332	Low	Moderate	Low	Low	Low	Low	Low
0349	Moderate	Moderate	Low	Low	Low	Low	Low
0350	Moderate	Moderate	Low	Low	Low	Low	Low
0351	Moderate	Moderate	Low	Low	Low	Low	Low
0352	Moderate	Moderate	Low	Low	Low	Low	Low
0353	Moderate	Moderate	Low	Low	Low	Low	Low
0354	Moderate	Moderate	Low	Low	Low	Low	Low
0355	Moderate	Moderate	Low	Low	Low	Low	Low
0356	Moderate	Moderate	Low	Low	Low	Low	Low
0357	Moderate	High	Low	Low	Low	Low	Low
0358	Moderate	High	Low	Low	Low	Low	Low
0359	Moderate	High	Low	Low	Low	Low	Low
0360	Moderate	Moderate	Low	Low	Low	Low	Low
0361	Moderate	Moderate	Low	Low	Low	Low	Low
0362	Moderate	Moderate	Low	Low	Low	Low	Low
0363	Moderate	Moderate	Low	Low	Low	Low	Low

MCFRS

COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

RMZ	Fire	EMS	Bomb	Tech Rescue	ARFF	Water	Hazmat
0364	Low	Moderate	Low	Low	Low	Low	Low
0365	Low	Moderate	Low	Low	Low	Low	Low
0366	Low	Low	Low	Low	Low	Low	Low
0367	Moderate	Moderate	Low	Low	Low	Low	Low
0368	Moderate	Moderate	Low	Low	Low	Low	Low
0369	Low	Moderate	Low	Low	Low	Low	Low
0370	Low	Moderate	Low	Low	Low	Low	Low
0371	Low	Low	Low	Low	Low	Low	Low
0372	Moderate	Moderate	Low	Low	Low	Low	Low
0373	Low	Low	Low	Low	Low	Low	Low
0374	Low	Low	Low	Low	Low	Low	Low
0375	Low	Low	Low	Low	Low	Low	Low
0376	Moderate	Moderate	Low	Low	Low	Low	Low
0377	Low	Low	Low	Low	Low	Low	Low
0378	Moderate	Moderate	Low	Low	Low	Low	Low
0379	Moderate	Moderate	Low	Low	Low	Low	Low
0380	Low	Low	Low	Low	Low	Low	Low
0381	Low	Low	Low	Low	Low	Low	Low
0382	Low	Low	Low	Low	Low	Low	Low
0383	Low	Low	Low	Low	Low	Low	Low
0384	Low	Low	Low	Low	Low	Low	Low
0385	Low	Low	Low	Low	Low	Low	Low
0386	Low	Low	Low	Low	Low	Low	Low
0387	Low	Low	Low	Low	Low	Low	Low
0388	Low	Low	Low	Low	Low	Low	Low
0389	Low	Moderate	Low	Low	Low	Low	Low
0390	Low	Moderate	Low	Low	Low	Low	Low
0393	Moderate	Moderate	Low	Low	Low	Low	Low
0401	Low	Moderate	Low	Low	Low	Low	Low
0403	Low	Moderate	Low	Low	Low	Low	Low
0404	Moderate	Moderate	Low	Low	Low	High	Low
0405	Moderate	Moderate	Low	Low	Low	Low	Low
0406	Moderate	Moderate	Low	Low	Low	Low	Low
0407	Moderate	Moderate	Low	Low	Low	Low	Low
0408	Low	Moderate	Low	Low	Low	Low	Low
0409	Moderate	Moderate	Low	Low	Low	Low	Low
0410	Moderate	Moderate	Low	Low	Low	Low	Low
0411	Low	Moderate	Low	Low	Low	Low	Low
0413	Moderate	Low	Low	Low	Low	Low	Low

MCFRS

COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

RMZ	Fire	EMS	Bomb	Tech Rescue	ARFF	Water	Hazmat
0416	Low	Moderate	Low	Low	Low	Low	Low
0417	Moderate	Moderate	Low	Low	Low	Low	Low
0418	Moderate	Moderate	Low	Low	Low	Low	Low
0419	Low	Moderate	Low	Low	Low	Low	Low
0420	Moderate	Moderate	Low	Low	Low	Moderate	Low
0421	Moderate	Moderate	Low	Low	Low	Low	Low
0422	Low	Moderate	Low	Low	Low	Low	Low
0423	Low	Moderate	Low	Low	Low	Low	Low
0424	Low	Low	Low	Low	Low	Low	Low
0425	Moderate	Low	Low	Low	Low	Low	Low
0426	Low	Moderate	Low	Low	Low	Low	Low
0427	Low	Moderate	Low	Low	Low	Low	Low
0428	Moderate	Moderate	Low	Low	Low	Low	Low
0429	Low	Low	Low	Low	Low	Low	Low
0430	Low	Moderate	Low	Low	Low	Low	Low
0431	Low	Moderate	Low	Low	Low	Low	Low
0432	Moderate	Moderate	Low	Low	Low	Low	Low
0433	Low	Low	Low	Low	Low	Low	Low
0434	Moderate	Moderate	Low	Low	Low	Low	Low
0435	Low	Low	Low	Low	Low	Low	Low
0436	Low	Low	Low	Low	Low	Low	Low
0437	Moderate	Moderate	Low	Low	Low	Low	Low
0438	Low	Moderate	Low	Low	Low	Low	Low
0439	Low	Low	Low	Low	Low	Low	Low
0501	High	High	Low	Low	Low	Low	Moderate
0502	High	High	Low	Low	Low	Low	Low
0503	Moderate	Moderate	Low	Low	Low	Low	Low
0504	High	High	Low	Low	Low	Low	Low
0505	Moderate	Moderate	Low	Low	Low	Low	Low
0506	High	Moderate	Low	Low	Low	Low	Low
0507	Moderate	Moderate	Low	Low	Low	Low	Low
0508	Moderate	Moderate	Low	Low	Low	Low	Low
0509	Moderate	Moderate	Low	Low	Low	Low	Low
0510	Moderate	High	Low	Low	Low	Low	Low
0511	Moderate	Moderate	Low	Low	Low	Low	Low
0512	Moderate	High	Low	Low	Low	Low	Low
0513	High	High	Low	Low	Low	Low	Low
0514	Moderate	Moderate	Low	Low	Low	Low	Low
0515	High	High	Low	Low	Low	Low	Low

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

RMZ	Fire	EMS	Bomb	Tech Rescue	ARFF	Water	Hazmat
0516	Low	Moderate	Low	Low	Low	Low	Low
0517	Moderate	High	Low	Low	Low	Low	Low
0518	Moderate	Moderate	Low	Low	Low	Low	Low
0519	Moderate	High	Low	Low	Low	Low	Low
0601	Moderate	Moderate	Low	Moderate	Low	Low	Low
0602	Special	High	Low	Moderate	Low	Low	Low
0603	Special	High	Low	Low	Low	Low	Moderate
0604	Moderate	High	Low	Low	Low	Low	Low
0605	High	Moderate	Low	Low	Low	Low	Low
0606	Low	Moderate	Low	Low	Low	Low	Low
0607	High	Moderate	Low	Moderate	Low	Low	Low
0608	Special	Moderate	Low	Moderate	Low	Low	Low
0609	Special	Moderate	Low	Low	Low	Low	Low
0610	Special	Moderate	High	Moderate	Low	Low	Moderate
0611	Moderate	Moderate	Low	Low	Low	Low	Low
0690	Moderate	Moderate	Low	Low	Low	Low	Low
0691	Low	Moderate	Low	Low	Low	Low	Low
0692	Moderate	Moderate	Low	Low	Low	Low	Low
0693	Moderate	Moderate	Low	Low	Low	Low	Low
0694	Moderate	Moderate	Low	Low	Low	Low	Low
0701	High	High	Low	Low	Low	Low	Low
0702	High	Moderate	Low	Low	Low	Low	Low
0703	Moderate	Moderate	Low	Low	Low	Low	Low
0704	Moderate	Moderate	Low	Low	Low	Low	Low
0705	Moderate	Moderate	Low	Low	Low	Low	Low
0706	Moderate	Moderate	Low	Low	Low	Low	Low
0707	High	Moderate	Low	Low	Low	Low	Low
0708	Moderate	High	Low	Low	Low	Low	Low
0709	Low	Moderate	Low	Low	Low	Low	Low
0710	Low	High	Low	Low	Low	Low	Low
0711	Moderate	Moderate	Low	Low	Low	Low	Low
0712	Moderate	Moderate	Low	Low	Low	Low	Low
0713	Moderate	High	Low	Low	Low	Low	Low
0714	Moderate	High	Low	Low	Low	Low	Low
0715	Low	Low	Low	Low	Low	Low	Low
0716	Low	Moderate	Low	Low	Low	Low	Low
0717	Low	Moderate	Low	Low	Low	Low	Low
0718	Moderate	High	Low	Low	Low	Low	Low
0801	High	High	Low	Low	Low	Low	Moderate

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

RMZ	Fire	EMS	Bomb	Tech Rescue	ARFF	Water	Hazmat
0802	High	High	Low	Low	Low	Low	Low
0803	Special	High	Low	Low	Low	Low	Special
0804	High	High	Low	Low	Low	Low	Moderate
0805	Moderate	Moderate	Low	Low	Low	Low	Low
0806	Moderate	High	Low	Low	Low	Low	Low
0807	High	High	Low	Low	Low	Low	Moderate
0808	High	High	Low	Low	Low	Low	Low
0812	High	High	Low	Low	Low	Low	Low
0813	Special	Special	Low	Low	Low	Low	Low
0814	Special	Special	Low	Low	Low	Low	Moderate
0815	Moderate	Moderate	Low	Low	Low	Low	Low
0816	Special	High	Low	Low	Low	Low	Low
0821	Moderate	Moderate	Low	Low	Low	Low	Low
0822	Moderate	Moderate	Low	Low	Low	Low	Low
0823	Special	High	Low	Low	Low	Low	High
0825	Low	Moderate	Low	Low	Low	Low	Low
0826	Low	Moderate	Low	Low	Low	Low	Low
0827	High	High	Low	Low	Low	Low	Low
0828	High	High	Low	Low	Low	Low	Low
0829	Special	High	Low	Low	Low	Low	Low
0830	Moderate	High	Low	Low	Low	Low	Low
0845	Moderate	Moderate	Low	Low	Low	Low	Low
0846	Low	Low	Low	Low	Low	Low	Low
0847	Moderate	Moderate	Low	Low	Low	Low	Low
0901	Moderate	Moderate	Low	Low	Low	Low	Low
0902	Moderate	Moderate	Low	Low	Low	Moderate	Low
0903	Low	Moderate	Low	Low	Moderate	Low	Low
0909	Moderate	Moderate	Low	Low	Low	Low	Low
0910	Moderate	Moderate	Low	Low	Low	Low	Low
0914	Low	Moderate	Low	Low	Low	Low	Low
0915	Low	Moderate	Low	Low	Low	Low	Low
0916	Low	Moderate	Low	Low	Low	Low	Low
0917	Low	Moderate	Low	Low	Low	Low	Low
1001	Moderate	Moderate	Low	Low	Low	Low	Low
1002	Low	Moderate	Low	Low	Low	Low	Low
1003	Moderate	Moderate	Low	Low	Low	Low	Low
1004	Moderate	Moderate	Low	Low	Low	Low	Low
1005	Moderate	Moderate	Low	Low	Low	Low	Low
1006	Moderate	Moderate	Low	Low	Low	Low	Low

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

RMZ	Fire	EMS	Bomb	Tech Rescue	ARFF	Water	Hazmat
1007	Moderate	Moderate	Low	Low	Low	Low	Low
1008	Moderate	Moderate	Low	Low	Low	Low	Low
1009	Moderate	Moderate	Low	Low	Low	Low	Low
1010	Moderate	Moderate	Low	Low	Low	Low	Low
1011	Moderate	Moderate	Low	Low	Low	Low	Low
1012	Moderate	Moderate	Low	Low	Low	Low	Low
1013	Moderate	Moderate	Low	Low	Low	Low	Low
1014	Moderate	Moderate	Low	Low	Low	Low	Low
1015	Low	Moderate	Low	Low	Low	Low	Low
1016	Low	Moderate	Low	Low	Low	Low	Low
1017	Moderate	Moderate	Low	Low	Low	Low	Low
1018	Low	Moderate	Low	Moderate	Low	Low	Low
1020	Low	Moderate	Low	Low	Low	Low	Low
1021	Low	Moderate	Low	Moderate	Low	Low	Low
1022	Low	Moderate	Low	Low	Low	Low	Low
1023	Moderate	High	Low	Low	Low	Low	Low
1024	Low	Moderate	Low	Low	Low	Low	Low
1025	Low	Moderate	Low	Low	Low	Moderate	Low
1026	Low	Moderate	Low	Low	Low	Low	Low
1027	Moderate	Moderate	Low	Low	Low	Low	Low
1028	Low	Moderate	Low	Low	Low	Low	Low
1029	Moderate	Moderate	Low	Low	Low	Low	Low
1030	Low	Moderate	Low	Moderate	Low	Low	Low
1031	Low	Moderate	Low	Low	Low	Low	Moderate
1032	Low	Low	Low	Low	Low	Moderate	Low
1033	Low	Moderate	Low	Low	Low	Low	Low
1034	Low	Moderate	Low	Low	Low	Low	Low
1101	High	Moderate	Low	Moderate	Low	Low	Moderate
1102	High	Moderate	Low	Moderate	Low	Moderate	Moderate
1103	Low	Moderate	Low	Low	Low	Low	Low
1104	Moderate	Moderate	Low	Low	Low	Low	Low
1105	Moderate	Moderate	Low	Low	Low	Moderate	Low
1106	High	Moderate	Low	Low	Low	Low	Moderate
1107	Moderate	High	Low	Low	Low	Low	Low
1108	Low	Low	Low	Low	Low	Moderate	Low
1201	High	High	Low	Low	Low	Low	Low
1202	High	Moderate	Low	Special	Low	Low	High
1203	High	Moderate	Low	Low	Low	Low	Low
1204	High	Moderate	Low	Low	Low	Low	Low

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

RMZ	Fire	EMS	Bomb	Tech Rescue	ARFF	Water	Hazmat
1205	Moderate	High	Low	Moderate	Low	Low	Low
1206	High	High	Low	Low	Low	Low	Low
1207	High	Moderate	Low	Low	Low	Low	Low
1208	High	High	Low	Low	Low	Low	Low
1209	High	High	Low	Low	Low	Low	Moderate
1210	Special	High	Low	Low	Moderate	Low	High
1211	High	Moderate	Low	Low	Low	Low	Low
1212	Moderate	Moderate	Low	Low	Low	Low	Low
1213	Low	Moderate	Low	Low	Low	Low	Low
1214	Moderate	High	Low	Low	Low	Low	Low
1255	Moderate	High	Low	Low	Low	Low	Low
1256	Moderate	Moderate	Low	Low	Low	Low	Low
1301	Moderate	Moderate	Low	Low	Low	Low	Low
1302	Moderate	Moderate	Low	Low	Low	Low	Low
1303	Low	Moderate	Low	Low	Low	Low	Low
1304	High	Moderate	Low	Low	Low	Low	Low
1305	Moderate	Low	Low	Low	Low	Low	Low
1306	Moderate	Moderate	Low	Low	Low	Low	Low
1307	Moderate	Moderate	Low	Low	Low	Low	Low
1308	Low	Low	Low	Low	Low	Low	Low
1309	Moderate	Moderate	Low	Low	Low	Low	Low
1311	Moderate	Moderate	Low	Low	Low	Low	Low
1313	Low	Moderate	Low	Low	Low	Low	Low
1314	High	Moderate	Low	Low	Low	Low	Low
1315	Moderate	Moderate	Low	Low	Low	Low	Low
1316	Low	Low	Low	Low	Low	Low	Low
1317	Moderate	Moderate	Low	Low	Low	Low	Low
1318	Moderate	Moderate	Low	Low	Low	Low	Low
1319	Moderate	Low	Low	Low	Low	Low	Low
1320	Low	Moderate	Low	Low	Low	Low	Low
1321	Moderate	Moderate	Low	Low	Low	Low	Low
1322	High	Moderate	Low	Low	Low	Low	Low
1323	Moderate	Moderate	Low	Low	Low	Low	Low
1324	Moderate	High	Low	Low	Low	Low	Low
1325	Low	Moderate	Low	Low	Low	Low	Low
1326	Moderate	Moderate	Low	Low	Low	Low	Low
1327	Low	Moderate	Low	Low	Low	Low	Low
1328	Moderate	Moderate	Low	Low	Low	Low	Low
1329	High	Moderate	Low	Low	Low	Low	Low

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

RMZ	Fire	EMS	Bomb	Tech Rescue	ARFF	Water	Hazmat
1331	Low	Low	Low	Low	Low	Low	Low
1332	Moderate	Moderate	Low	Low	Low	Low	Low
1333	Low	Moderate	Low	Low	Low	Low	Low
1334	Low	Low	Low	Low	Low	Low	Low
1335	Low	Low	Low	Low	Low	Low	Low
1336	Low	High	Low	Low	Low	Low	Low
1401	High	Moderate	Low	Low	Low	Low	Moderate
1402	Moderate	Moderate	Low	Low	Low	Low	Low
1403	Low	Moderate	Low	Low	Low	Low	Low
1404	Low	Moderate	Low	Low	Low	Moderate	Low
1405	Moderate	Moderate	Low	Low	Low	High	Low
1406	Low	Moderate	Low	Low	Low	Low	Low
1407	Moderate	Moderate	Low	Low	Low	Low	Low
1408	High	Moderate	Low	Moderate	Low	High	High
1409	Low	Low	Low	Low	Low	Low	Low
1410	Low	Moderate	Low	Low	Low	High	Low
1412	Low	Moderate	Low	Moderate	Low	Special	Low
1413	Low	Moderate	Low	Low	Low	Low	Low
1414	Low	Moderate	Low	Low	Low	High	Low
1415	Moderate	Moderate	Low	Low	Low	Low	Low
1416	Moderate	Moderate	Low	Low	Low	Low	Low
1417	Moderate	Moderate	Low	Low	Low	Low	Low
1418	Low	Moderate	Low	Low	Low	Low	Low
1421	Low	Low	Low	Low	Low	Moderate	Low
1422	Low	Low	Low	Low	Low	Moderate	Low
1423	Low	Low	Low	Low	Low	Moderate	Low
1424	Low	Low	Low	Low	Low	Moderate	Low
1501	High	High	Low	Low	Low	Low	Low
1502	Moderate	Moderate	Low	Low	Low	Moderate	Low
1503	High	Moderate	Low	Low	Low	Low	Moderate
1504	Moderate	Moderate	Low	Low	Low	Low	Low
1505	High	Moderate	Low	Low	Low	Low	Low
1506	Moderate	Moderate	Low	Moderate	Low	Low	Low
1507	Moderate	Moderate	Low	Low	Low	Low	Low
1508	Low	Moderate	Low	Low	Low	Low	Low
1509	Low	Low	Low	Low	Low	Low	Low
1510	Moderate	High	Low	Low	Low	Low	Low
1511	Low	Moderate	Low	Low	Low	Low	Low
1512	High	High	Low	Low	Low	Low	Moderate

MCFRS

COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

RMZ	Fire	EMS	Bomb	Tech Rescue	ARFF	Water	Hazmat
1513	Moderate	Moderate	Low	Low	Low	Low	Low
1514	Moderate	Moderate	Low	Low	Low	Low	Low
1515	Moderate	Moderate	Low	Low	Low	Low	Low
1516	High	High	Low	Low	Low	Low	Low
1518	High	High	Low	Moderate	Low	Low	Moderate
1519	High	High	Low	Moderate	Low	Low	Low
1520	Low	Low	Low	Low	Low	Low	Low
1525	Low	Moderate	Low	Low	Low	Low	Low
1526	High	High	Low	Low	Low	Low	Low
1527	High	High	Low	Low	Low	Low	Low
1528	High	High	Low	Low	Low	Low	Low
1529	High	High	Low	Low	Low	Low	Low
1530	Low	Moderate	Low	Low	Low	Low	Low
1531	Moderate	Moderate	Low	Low	Low	Low	Low
1532	Moderate	Moderate	Low	Low	Low	Low	Low
1533	Low	Moderate	Low	Low	Low	Low	Low
1534	Low	Low	Low	Low	Low	Low	Low
1535	Low	Moderate	Low	Low	Low	Low	Low
1601	Moderate	Moderate	Low	Moderate	Low	Low	Low
1602	High	High	Low	Low	Low	Low	Low
1603	High	Moderate	Low	Low	Low	Low	Low
1604	Moderate	Moderate	Low	Low	Low	Low	Low
1605	Moderate	Moderate	Low	Low	Low	Low	Low
1606	Moderate	Moderate	Low	Low	Low	Low	Low
1607	High	High	Low	Low	Low	Low	Low
1608	Special	High	Low	Low	Low	Low	Low
1609	High	High	Low	Low	Low	Low	Low
1610	High	High	Low	Low	Low	Low	Low
1611	Moderate	High	Low	Low	Low	Low	Low
1612	Moderate	High	Low	Low	Low	Low	Low
1613	High	Moderate	Low	Low	Low	Low	Low
1614	Special	High	Low	Low	Low	Low	Low
1615	Low	Low	Low	Low	Low	Low	Low
1616	Moderate	Moderate	Low	Low	Low	Low	Low
1617	Low	Moderate	Low	Low	Low	Low	Low
1618	Moderate	High	Low	Low	Low	Low	Low
1701	Low	Moderate	Low	Low	Low	Low	Low
1702	Moderate	Moderate	Low	Low	Low	Low	Low
1703	Moderate	Moderate	Low	Low	Moderate	Low	Low

MCFRS

COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

RMZ	Fire	EMS	Bomb	Tech Rescue	ARFF	Water	Hazmat
1704	Moderate	Moderate	Low	Low	Low	Low	Low
1705	Low	Moderate	Low	Low	Low	Low	Low
1706	Low	Low	Low	Low	Moderate	Low	Low
1707	Moderate	Moderate	Low	Low	Low	Moderate	Low
1708	Moderate	Moderate	Low	Low	Low	Low	Low
1709	Moderate	Moderate	Low	Low	Low	Low	Low
1711	Low	Moderate	Low	Low	Low	Low	Low
1712	Moderate	Moderate	Low	Low	Low	Low	Low
1714	Moderate	Moderate	Low	Low	Low	Low	Low
1715	Low	Low	Low	Low	Low	Low	Low
1716	Low	Moderate	Low	Low	Low	Low	Low
1717	Moderate	Moderate	Low	Low	Low	Low	Low
1718	Moderate	Moderate	Low	Low	Moderate	Low	Low
1719	Moderate	Moderate	Low	Low	Low	Low	Low
1720	Low	Low	Low	Low	Low	Low	Low
1721	Moderate	Moderate	Low	Low	Low	Low	Low
1722	Low	Moderate	Low	Low	Low	Low	Low
1723	Moderate	Moderate	Low	Low	Low	Low	Low
1724	Low	Moderate	Low	Low	Low	Low	Low
1725	Low	Low	Low	Low	Low	Low	Low
1726	Moderate	Moderate	Low	Low	Low	Low	Low
1727	Low	Moderate	Low	Low	Low	Low	Low
1728	Low	Moderate	Low	Low	Low	Low	Low
1729	Low	Moderate	Low	Low	Low	Low	Low
1801	High	High	Low	Low	Low	Low	Low
1802	Moderate	Moderate	Low	Low	Low	Low	Low
1803	High	High	Low	Low	Low	Low	Low
1804	High	High	Low	Low	Low	Low	Low
1805	Moderate	Moderate	Low	Low	Low	Low	Low
1806	High	High	Low	Moderate	Low	Low	High
1808	High	High	Low	Moderate	Low	Low	Low
1809	Moderate	Moderate	Low	Low	Low	Low	Low
1810	High	High	Low	Low	Low	Low	Low
1811	Moderate	Moderate	Low	Low	Low	Low	Low
1812	High	High	Low	Low	Low	Low	Low
1813	High	High	Low	Low	Low	Low	Low
1814	High	High	Low	Low	Low	Low	Low
1815	High	High	Low	Low	Low	Low	Low
1816	High	High	Low	Moderate	Low	Low	Moderate

MCFRS

COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

RMZ	Fire	EMS	Bomb	Tech Rescue	ARFF	Water	Hazmat
1817	Moderate	Moderate	Low	Low	Low	Low	Low
1818	High	High	Low	Low	Low	Low	Low
1821	High	Moderate	Low	Low	Low	Low	Low
1824	Moderate	High	Low	Low	Low	Low	Low
1890	Moderate	Moderate	Low	Low	Low	Low	Low
1891	Moderate	Moderate	Low	Moderate	Low	Low	Low
1892	Moderate	Moderate	Low	Low	Low	Low	Low
1893	Moderate	Moderate	Low	Low	Low	Low	Low
1894	Moderate	Moderate	Low	Low	Low	Low	Low
1895	Moderate	Moderate	Low	Low	Low	Low	Low
1896	Low	Low	Low	Low	Low	Low	Low
1897	Moderate	Moderate	Low	Low	Low	Low	Low
1898	Moderate	Moderate	Low	Low	Low	Low	Low
1901	High	High	Low	Low	Low	Low	Moderate
1902	Moderate	Moderate	Low	Low	Low	Low	Low
1903	High	High	Low	Low	Low	Low	Low
1904	Moderate	Moderate	Low	Low	Low	Low	Low
1905	High	High	Low	Low	Low	Low	Low
1906	Moderate	High	Low	Low	Low	Low	Low
1907	Moderate	Moderate	Low	Low	Low	Low	Low
1908	Moderate	High	Low	Low	Low	Low	Low
1909	Moderate	Moderate	Low	Low	Low	Low	Low
1910	Moderate	High	Low	Low	Low	Low	Low
1911	Moderate	Moderate	Low	Low	Low	Low	Low
1912	Low	Moderate	Low	Low	Low	Low	Low
1913	Moderate	Moderate	Low	Low	Low	Low	Low
1914	High	High	Low	Low	Low	Low	Low
1915	High	Moderate	Low	Low	Low	Low	Low
1916	Moderate	Moderate	Low	Low	Low	Low	Low
1917	High	Moderate	Low	Low	Moderate	Low	Low
1918	Moderate	Moderate	Low	Low	Low	Low	Low
1922	Moderate	High	Low	Low	Low	Low	Low
1923	Low	Moderate	Low	Low	Low	Low	Low
1924	Low	Moderate	Low	Low	Low	Low	Low
1925	Low	Moderate	Low	Low	Low	Low	Low
1990	Moderate	Moderate	Low	Low	Low	Low	Low
1991	Low	Moderate	Low	Low	Low	Low	Low
1992	Moderate	Moderate	Low	Low	Low	Low	Low
2001	Moderate	Moderate	Low	Low	Low	Low	Low

MCFRS

COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

RMZ	Fire	EMS	Bomb	Tech Rescue	ARFF	Water	Hazmat
2002	Moderate	Moderate	Low	Low	Low	Low	Low
2003	Moderate	Moderate	Low	Low	Low	Low	Low
2004	Moderate	Moderate	Low	Low	Low	Low	Low
2005	Moderate	Moderate	Low	Low	Low	Low	Low
2006	Moderate	Moderate	Low	Low	Low	Low	Low
2007	High	Moderate	Low	Low	Low	Low	Low
2008	Moderate	Moderate	Low	Low	Moderate	Low	Low
2009	High	High	Low	Low	Low	Low	Low
2010	Moderate	Moderate	Low	Low	Low	Low	Low
2011	Low	Moderate	Low	Low	Low	Low	Low
2012	Low	Moderate	Low	Low	Low	Low	Low
2013	Moderate	High	Low	Low	Low	Low	Low
2014	Low	Moderate	Low	Low	Low	Low	Low
2015	Moderate	Moderate	Low	Low	Low	Low	Low
2016	Moderate	Moderate	Low	Low	Low	Low	Low
2018	Moderate	High	Low	Low	Low	Low	Low
2019	High	High	Low	Low	Low	Low	Low
2020	Low	Moderate	Low	Low	Low	Low	Low
2022	Moderate	Moderate	Low	Low	Low	Low	Low
2023	Moderate	Moderate	Low	Low	Low	Low	Low
2090	Low	Low	Low	Low	Low	Low	Low
2091	Low	Low	Low	Low	Low	Low	Low
2092	Low	Low	Low	Low	Low	Low	Low
2093	Low	Moderate	Low	Low	Low	Low	Low
2094	Low	Low	Low	Low	Low	Low	Low
2095	Moderate	Moderate	Low	Low	Low	Low	Low
2096	Low	Moderate	Low	Low	Low	Low	Low
2097	Low	Moderate	Low	Low	Low	Low	Low
2101	Moderate	High	Low	Low	Low	Low	Low
2102	High	High	Low	Low	Low	Low	Low
2103	High	High	Low	Low	Low	Low	Low
2104	High	High	Low	Moderate	Low	Low	Low
2105	Low	Moderate	Low	Low	Low	Low	Low
2106	High	High	Low	Low	Low	Low	Low
2107	Moderate	High	Low	Low	Low	Low	Low
2108	High	High	Low	Moderate	Low	Low	Low
2112	High	High	Low	Low	Low	Low	Low
2113	High	High	Low	Low	Low	Low	Low
2114	Moderate	High	Low	Low	Low	Low	Low

MCFRS

COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

RMZ	Fire	EMS	Bomb	Tech Rescue	ARFF	Water	Hazmat
2201	Moderate	Moderate	Low	Low	Low	Low	Low
2202	High	Moderate	Low	Low	Low	Low	Low
2203	Moderate	Moderate	Low	Low	Low	Low	Low
2204	High	High	Low	Low	Low	Low	Moderate
2206	Low	Moderate	Low	Low	Low	Low	Low
2207	Moderate	Moderate	Low	Low	Low	Low	Low
2208	Moderate	Moderate	Low	Low	Low	Low	Low
2209	Low	Moderate	Low	Low	Low	Low	Low
2210	Moderate	Moderate	Low	Low	Low	Low	Low
2211	Moderate	Moderate	Low	Low	Low	Low	Low
2212	Low	Moderate	Low	Low	Low	Low	Low
2213	Low	Moderate	Low	Low	Low	Low	Low
2214	High	Moderate	Low	Low	Low	Low	Low
2215	Low	Moderate	Low	Low	Low	Low	Low
2216	Low	Moderate	Low	Low	Low	Moderate	Low
2217	Moderate	Moderate	Low	Low	Low	Low	Low
2301	Special	High	Moderate	Moderate	Low	Low	High
2302	High	High	Low	Low	Low	Low	Low
2303	High	Moderate	Low	Low	Low	Low	Moderate
2304	Moderate	Moderate	Low	Low	Low	Low	Low
2305	High	Moderate	Low	Low	Low	Low	Low
2306	High	High	Low	Low	Low	Low	Moderate
2307	High	High	Low	Low	Low	Low	Low
2308	High	Moderate	Low	Low	Low	Low	Low
2309	High	Moderate	Low	Low	Low	Low	Moderate
2310	High	Moderate	Low	Low	Low	Low	Low
2311	Moderate	High	Low	Low	Low	Low	Low
2312	High	High	Low	Low	Low	Low	Low
2313	Special	Moderate	Low	Low	Low	Low	High
2314	Low	Moderate	Low	Low	Low	Low	Low
2315	Low	Moderate	Low	Low	Low	Low	Low
2317	Moderate	High	Low	Low	Low	Low	Low
2380	Low	Low	Low	Low	Low	Low	Low
2381	Low	Low	Low	Low	Low	Low	Low
2382	Moderate	Moderate	Low	Low	Low	Low	Low
2383	Moderate	Moderate	Low	Low	Low	Low	Low
2384	Moderate	Moderate	Low	Low	Low	Low	Low
2385	Moderate	Moderate	Low	Low	Low	Low	Low
2386	Moderate	Moderate	Low	Low	Low	Low	Low

MCFRS

COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

RMZ	Fire	EMS	Bomb	Tech Rescue	ARFF	Water	Hazmat
2387	Moderate	Moderate	Low	Low	Low	Low	Low
2388	Moderate	Moderate	Low	Low	Low	Low	Low
2389	Low	Moderate	Low	Low	Low	Low	Low
2390	Moderate	Moderate	Low	Low	Low	Low	Low
2391	Moderate	Moderate	Low	Low	Low	Low	Low
2392	Low	Moderate	Low	Low	Low	Low	Low
2393	Moderate	Moderate	Low	Low	Low	Low	Low
2394	Low	Low	Low	Low	Low	Low	Low
2395	Moderate	Moderate	Low	Low	Low	Low	Low
2401	High	High	Low	Low	Low	Low	Low
2402	Moderate	Moderate	Low	Low	Low	Low	Low
2403	High	High	Low	Low	Low	Low	Low
2404	High	Moderate	Low	Low	Low	Low	Low
2407	Moderate	Moderate	Low	Low	Low	Low	Low
2408	High	High	Low	Low	Low	Low	Low
2409	Moderate	Moderate	Low	Low	Low	Low	Low
2410	Moderate	High	Low	Low	Low	Low	Low
2412	Moderate	Moderate	Low	Low	Low	Low	Low
2413	Low	Moderate	Low	Low	Low	Low	Low
2414	Low	Moderate	Low	Low	Low	Low	Low
2415	High	High	Low	Low	Low	Low	Low
2416	Low	Moderate	Low	Low	Low	Low	Low
2418	High	Moderate	Low	Low	Low	Low	Low
2419	Moderate	Moderate	Low	Low	Low	Low	Low
2420	Moderate	High	Low	Low	Low	Low	Low
2421	Moderate	Moderate	Low	Low	Low	Low	Low
2422	Low	Moderate	Low	Low	Low	Low	Low
2423	Low	Moderate	Low	Low	Low	Low	Low
2424	High	High	Low	Low	Low	Low	Low
2425	Low	Moderate	Low	Low	Low	Low	Low
2426	Low	Moderate	Low	Low	Low	Low	Low
2501	High	High	Low	Moderate	Low	Low	Low
2502	Moderate	High	Low	Low	Low	Low	Low
2503	High	High	Low	Low	Low	Low	Low
2504	High	High	Low	Low	Low	Low	Low
2505	Moderate	Moderate	Low	Low	Low	Low	Low
2506	Moderate	High	Low	Low	Low	Low	Low
2507	High	High	Low	Low	Low	Low	Low
2508	Special	Special	Low	Moderate	Low	Low	Moderate

MCFRS

COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

RMZ	Fire	EMS	Bomb	Tech Rescue	ARFF	Water	Hazmat
2509	Special	Special	Low	Low	Low	Low	Moderate
2510	Moderate	High	Low	Low	Low	Low	Low
2511	Moderate	Moderate	Low	Low	Low	Low	Low
2512	Low	Moderate	Low	Low	Low	Low	Low
2513	Moderate	Moderate	Low	Low	Low	Low	Low
2514	Moderate	Moderate	Low	Low	Low	Low	Low
2515	High	High	Low	Low	Low	Low	Low
2516	High	High	Low	Low	Low	Low	Low
2517	Moderate	Moderate	Low	Low	Low	Low	Low
2518	Moderate	High	Low	Low	Low	Low	Low
2519	Moderate	Moderate	Low	Low	Low	Low	Low
2520	Moderate	Moderate	Low	Low	Low	Low	Low
2521	Low	Moderate	Low	Low	Low	Low	Low
2522	Moderate	Moderate	Low	Low	Low	Low	Low
2523	Moderate	Moderate	Low	Low	Low	Low	Low
2524	Moderate	High	Low	Low	Low	Low	Low
2525	Moderate	Moderate	Low	Low	Low	Low	Low
2526	Low	Moderate	Low	Low	Low	Low	Low
2527	Moderate	High	Low	Low	Low	Low	Low
2528	Low	Moderate	Low	Low	Low	Low	Low
2529	Low	Moderate	Low	Low	Low	Low	Low
2601	High	High	Low	Low	Low	Low	Low
2603	High	High	Low	Low	Low	Low	Low
2604	Moderate	High	Low	Low	Low	Low	Low
2605	High	Moderate	Low	Moderate	Low	Low	Low
2606	High	High	Low	Low	Low	Low	Low
2607	Moderate	Moderate	Low	Low	Low	Low	Low
2609	High	High	Low	High	Low	Low	Moderate
2610	Moderate	Moderate	Low	Low	Low	Low	Low
2612	Moderate	Moderate	Low	Low	Low	Low	Low
2614	High	Moderate	Low	Low	Low	Low	Low
2615	Low	Moderate	Low	Low	Low	Low	Low
2616	Low	Moderate	Low	Low	Low	Low	Low
2617	Low	Moderate	Low	Low	Low	Low	Low
2618	Moderate	High	Low	Low	Low	Low	Low
2619	Low	Moderate	Low	Low	Low	Low	Low
2621	Low	Moderate	Low	Low	Low	Low	Low
2622	Low	Moderate	Low	Low	Low	Low	Low
2623	Low	Moderate	Low	Low	Low	Low	Low

MCFRS

COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

RMZ	Fire	EMS	Bomb	Tech Rescue	ARFF	Water	Hazmat
2625	Moderate	Moderate	Low	Low	Low	Low	Low
2626	Moderate	Moderate	Low	Low	Low	Low	Low
2701	Low	Low	Low	Low	Low	Low	Low
2801	Low	Moderate	Low	Low	Special	Low	Low
2802	Low	Moderate	Low	Low	Low	Low	Low
2803	Low	Low	Low	Low	Low	Low	Low
2804	Moderate	Moderate	Low	Moderate	Low	Low	Low
2805	Moderate	Moderate	Low	Low	Low	Low	Low
2806	Moderate	Moderate	Low	Low	Low	Low	Low
2807	High	Moderate	Low	Low	Low	Moderate	Low
2808	Low	Moderate	Low	Low	Low	Low	Low
2809	Low	Moderate	Low	Low	Low	Low	Low
2810	Moderate	Moderate	Low	Low	Low	Low	Low
2811	High	High	Low	Moderate	Low	Low	Moderate
2812	Moderate	Moderate	Low	Low	Low	Low	Moderate
2813	Low	Moderate	Low	Low	Low	Low	Low
2815	High	High	Low	Low	Low	Low	Low
2816	Moderate	Moderate	Low	Moderate	Low	Low	Moderate
2817	Moderate	Moderate	Low	Low	Low	Low	Low
2820	Moderate	Moderate	Low	Low	Low	Low	Low
2821	High	High	Low	Low	Low	Low	Low
2824	Low	Moderate	Low	Low	Low	Low	Low
2825	Moderate	Moderate	Low	Low	Low	Low	Low
2827	Low	Low	Low	Low	Low	Low	Low
2828	Moderate	Moderate	Low	Low	Low	Low	Low
2829	Low	Moderate	Low	Moderate	Low	Low	Low
2830	Low	Low	Low	Low	Low	Low	Low
2831	Low	Low	Low	Low	Low	Low	Low
2832	Low	Low	Low	Low	Low	Low	Low
2833	Low	Low	Low	Low	Low	Low	Low
2834	Low	Low	Low	Low	Low	Low	Low
2835	Low	Low	Low	Low	Low	Low	Low
2901	High	Moderate	Low	Low	Moderate	Low	Moderate
2902	High	Moderate	Low	Moderate	Low	Low	Low
2906	Moderate	Moderate	Low	Low	Low	Low	Low
2909	Moderate	Moderate	Low	Low	Low	Moderate	Low
2910	High	High	Low	Low	Low	Low	Low
2911	Moderate	High	Low	Low	Low	Low	Low
2913	Moderate	Moderate	Low	Low	Low	Low	Low

MCFRS

COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

RMZ	Fire	EMS	Bomb	Tech Rescue	ARFF	Water	Hazmat
2915	High	Moderate	Low	Low	Low	Low	Low
2924	High	Moderate	Low	Low	Low	Low	Moderate
2942	Moderate	Moderate	Low	Low	Low	Low	Low
2944	Low	Moderate	Low	Low	Low	Low	Low
3001	Moderate	Moderate	Low	Low	Low	High	Low
3002	Moderate	Moderate	Low	Moderate	Low	High	Low
3003	Moderate	Moderate	Low	Low	Low	Low	Low
3004	Moderate	Low	Low	Low	Low	Low	Low
3005	Low	Low	Low	Low	Low	High	Low
3006	High	Moderate	Low	Low	Low	Low	Low
3007	Moderate	Moderate	Low	Low	Low	Moderate	Low
3008	Low	Low	Low	Low	Low	High	Low
3009	Low	Moderate	Low	Low	Low	Moderate	Low
3010	Low	Low	Low	Low	Low	Moderate	Low
3011	Moderate	Moderate	Low	Moderate	Low	Low	Low
3012	Low	Low	Low	Low	Low	Moderate	Low
3013	Low	Moderate	Low	Low	Low	Low	Low
3014	Moderate	Moderate	Low	Low	Low	Low	Low
3015	Moderate	Moderate	Low	Low	Low	Low	Low
3016	Low	Low	Low	Low	Low	Low	Low
3017	Low	Moderate	Low	Low	Low	Moderate	Low
3018	Low	Moderate	Low	Low	Low	Moderate	Low
3019	Low	Low	Low	Low	Low	Low	Low
3020	Moderate	Moderate	Low	Low	Low	Low	Low
3021	Low	Moderate	Low	Low	Low	Special	Low
3022	Low	Low	Low	Low	Low	Low	Low
3101	Low	Moderate	Low	Low	Low	High	Low
3102	Low	Low	Low	Low	Low	Moderate	Low
3103	Low	Low	Low	Low	Low	Low	Low
3104	Low	Moderate	Low	Low	Low	Moderate	Low
3105	Moderate	Moderate	Low	Low	Low	Low	Low
3108	Low	Moderate	Low	Low	Low	Low	Low
3111	Moderate	Moderate	Low	Low	Low	Low	Low
3112	Low	Moderate	Low	Low	Low	Low	Low
3113	High	Moderate	Low	Low	Low	Moderate	Low
3114	Moderate	Moderate	Low	Low	Low	Low	Low
3115	Moderate	Moderate	Low	Low	Low	Low	Low
3116	Moderate	Moderate	Low	Low	Low	Low	Low
3117	Moderate	Moderate	Low	Low	Low	Low	Low

MCFRS

COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

RMZ	Fire	EMS	Bomb	Tech Rescue	ARFF	Water	Hazmat
3118	Moderate	Moderate	Low	Low	Low	Low	Low
3119	Moderate	Moderate	Low	Low	Low	Low	Low
3120	Moderate	Moderate	Low	Low	Low	Low	Low
3121	Low	Moderate	Low	Low	Low	Low	Low
3122	Low	Moderate	Low	Low	Low	Low	Low
3123	Moderate	Moderate	Low	Low	Low	Low	Low
3124	Low	Low	Low	Low	Low	Low	Low
3125	Moderate	Moderate	Low	Low	Low	Low	Low
3127	Low	Moderate	Low	Low	Low	Low	Low
3128	Low	Moderate	Low	Low	Low	Moderate	Low
3129	Low	Moderate	Low	Low	Low	Moderate	Low
3130	Low	Moderate	Low	Low	Low	Moderate	Low
3131	Moderate	Moderate	Low	Low	Low	Moderate	Low
3132	High	Moderate	Low	Low	Low	Low	Low
3133	Moderate	Moderate	Low	Low	Low	Low	Low
3135	Moderate	Moderate	Low	Low	Low	Low	Low
3136	Low	Low	Low	Low	Low	Moderate	Low
3137	Low	Low	Low	Low	Low	Moderate	Low
3139	Low	Moderate	Low	Low	Low	Low	Low
3201	Moderate	Moderate	Low	Moderate	Moderate	Low	High
3202	Low	Moderate	Low	Low	Low	Low	Moderate
3203	Moderate	Moderate	Low	Low	Low	Low	Low
3204	High	Moderate	Low	Low	Low	Low	Low
3205	High	Moderate	Low	Low	Low	Moderate	Moderate
3206	Moderate	Moderate	Low	Low	Low	Low	Low
3207	Moderate	Moderate	Low	Low	Low	Low	Moderate
3208	Moderate	High	Low	Low	Low	Low	Low
3209	Special	High	Low	Low	Low	Low	Moderate
3210	Moderate	Moderate	Low	Moderate	Low	Low	Low
3211	High	Moderate	Low	Moderate	Low	Low	Low
3212	High	High	Low	Low	Low	Moderate	Moderate
3213	Moderate	High	Low	Low	Low	Low	Low
3214	Low	Moderate	Low	Low	Low	Moderate	Low
3215	Low	Moderate	Low	Low	Low	Low	Low
3216	Low	Low	Low	Low	Low	Low	Low
3217	Low	Low	Low	Low	Low	Low	Low
3218	Moderate	Moderate	Low	Low	Low	Low	Low
3219	Low	Low	Low	Low	Low	Low	Low
3220	Low	Moderate	Low	Low	Low	Low	Low

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

RMZ	Fire	EMS	Bomb	Tech Rescue	ARFF	Water	Hazmat
3221	Low	Moderate	Low	Low	Low	Low	Low
3222	Moderate	Moderate	Low	Low	Low	Low	Low
3223	High	Moderate	Low	Low	Low	Low	Moderate
3224	Moderate	Moderate	Low	Low	Low	Low	Low
3225	High	Moderate	Low	Low	Low	Low	Low
3226	Low	Moderate	Low	Low	Low	Low	Low
3227	Low	Moderate	Low	Low	Low	Low	Low
3228	Low	Moderate	Low	Low	Low	Low	Low
3229	Low	Moderate	Low	Low	Low	Low	Low
3230	Low	Moderate	Low	Low	Low	Low	Low
3231	Moderate	Moderate	Low	Low	Low	Low	Low
3232	Low	Moderate	Low	Low	Low	Low	Low
3233	Low	Moderate	Low	Low	Low	Low	Low
3234	Low	Moderate	Low	Low	Low	Low	Low
3235	Moderate	High	Low	Low	Low	Low	Low
3236	Moderate	High	Low	Low	Low	Low	Low
3237	Low	Low	Low	Low	Low	Low	Low
3238	Low	Low	Low	Low	Low	Low	Low
3239	Moderate	High	Low	Low	Low	Low	Low
3301	High	Moderate	Low	Low	Low	Low	Low
3302	Moderate	High	Low	Low	Low	Low	Low
3303	High	Moderate	Low	Low	Low	Low	Low
3304	Moderate	Moderate	Low	Low	Low	Low	Low
3305	High	Moderate	Low	Low	Low	Low	Low
3306	Moderate	Moderate	Low	Low	Low	Low	Low
3307	Moderate	Moderate	Low	Low	Low	Low	Low
3308	Moderate	Moderate	Low	Low	Low	Low	Low
3309	Low	Moderate	Low	Low	Low	Low	Low
3310	Moderate	Moderate	Low	Low	Low	Low	Low
3312	Low	Moderate	Low	Low	Low	Low	Low
3315	Moderate	Moderate	Low	Low	Low	Low	Low
3316	Low	Moderate	Low	Low	Low	Low	Low
3322	Low	Moderate	Low	Low	Low	Low	Low
3323	Low	Low	Low	Low	Low	Low	Low
3324	Moderate	Moderate	Low	Low	Low	Low	Low
3325	Low	Moderate	Low	Low	Low	Low	Low
3326	Low	Low	Low	Low	Low	Low	Low
3328	Low	Moderate	Low	Low	Low	Low	Low
3401	High	Low	Low	Low	Low	Low	Moderate

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

RMZ	Fire	EMS	Bomb	Tech Rescue	ARFF	Water	Hazmat
3402	Moderate	Moderate	Low	Low	Low	Low	Low
3403	Low	Moderate	Low	Low	Low	Low	Low
3404	Low	Moderate	Low	Low	Low	Low	Low
3405	Low	Low	Low	Low	Low	Low	Low
3406	Low	Moderate	Low	Low	Low	Low	Low
3407	Moderate	Moderate	Low	Low	Low	Low	Low
3408	Low	Moderate	Low	Low	Low	Low	Low
3409	Low	Moderate	Low	Low	Low	Low	Low
3410	Low	Moderate	Low	Low	Low	Low	Low
3411	Moderate	Moderate	Low	Low	Low	Low	Low
3412	Moderate	Moderate	Low	Low	Low	Low	Low
3413	Low	Moderate	Low	Low	Low	Low	Low
3414	Low	Moderate	Low	Low	Low	Low	Low
3415	High	Moderate	Low	Low	Low	Low	Low
3416	Low	Low	Low	Low	Low	Low	Low
3417	Moderate	Moderate	Low	Low	Low	Low	Low
3418	Low	Low	Low	Low	Low	Low	Low
3419	Moderate	High	Low	Low	Low	Low	Low
3420	High	High	Low	Low	Low	Low	Low
3421	Low	Moderate	Low	Low	Low	Low	Low
3422	High	Moderate	Low	Low	Low	Low	Low
3423	High	Moderate	Low	Low	Low	Low	Low
3424	Low	Moderate	Low	Low	Low	Low	Low
3425	Low	Moderate	Low	Low	Low	Low	Low
3426	Low	Moderate	Low	Low	Low	Low	Low
3501	Moderate	Moderate	Low	Low	Low	Low	Low
3502	Low	Moderate	Low	Low	Low	Low	Low
3503	Low	Low	Low	Low	Low	Low	Low
3504	Low	Moderate	Low	Low	Low	Moderate	Low
3505	Low	Moderate	Low	Low	Low	Low	Low
3506	Moderate	Moderate	Low	Low	Moderate	Moderate	Low
3507	Moderate	Moderate	Low	Low	Low	Low	Low
3508	Moderate	Moderate	Low	Low	Low	Low	Moderate
3509	Moderate	Moderate	Low	Low	Low	Moderate	Low
3510	Low	Moderate	Low	Low	Low	Low	Low
3511	Moderate	Moderate	Low	Low	Low	Low	Low
3512	Moderate	Low	Low	Low	Low	Low	Low
3513	Low	Moderate	Low	Low	Low	Moderate	Low
3514	Low	Low	Low	Low	Low	Low	Low

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

RMZ	Fire	EMS	Bomb	Tech Rescue	ARFF	Water	Hazmat
3515	Low	Moderate	Low	Low	Low	Low	Low
3517	Low	Low	Low	Low	Low	Low	Low
3518	Low	Moderate	Low	Low	Low	Low	Low
3525	Low	Moderate	Low	Low	Low	Low	Moderate
3526	Low	Moderate	Low	Low	Low	Low	Low
4001	Low	Low	Low	Low	Low	Low	Low
4002	Low	Moderate	Low	Low	Low	Moderate	Low
4003	Low	Moderate	Low	Low	Low	Moderate	Low
4004	Low	Moderate	Low	Low	Low	Low	Low
4005	High	High	Low	Low	Low	Low	Moderate
4006	High	Moderate	Low	Low	Low	Low	Low
4007	High	High	Low	Low	Low	Low	Low
4008	Moderate	Moderate	Low	Low	Moderate	Low	Low
4009	Moderate	Moderate	Low	Low	Low	Moderate	Low
4010	Moderate	Moderate	Low	Low	Low	Low	Low
4011	High	Moderate	Low	Low	Low	Low	Low
4012	Moderate	Moderate	Low	Low	Low	Low	Low
4013	Low	Moderate	Low	Low	Low	Low	Low
4014	Low	Moderate	Low	Low	Low	Low	Low
4015	Low	Moderate	Low	Low	Low	Low	Low
4016	High	Moderate	Low	Low	Low	Low	Low
4017	High	Moderate	Low	Low	Low	Low	Low
4018	Low	Moderate	Low	Low	Low	Low	Low
4019	Low	Moderate	Low	Low	Low	Low	Low
4020	Low	Low	Low	Low	Low	Low	Low
4021	Low	Moderate	Low	Low	Low	Low	Low
4022	Low	Moderate	Low	Low	Low	Low	Low
4023	Low	Moderate	Low	Low	Low	Low	Low
4024	Low	Moderate	Low	Low	Low	Low	Low
4025	Low	Moderate	Low	Low	Low	Low	Low
4026	Moderate	Moderate	Low	Low	Low	Low	Low
4027	Low	Moderate	Low	Low	Low	Low	Low

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Protection & Detection Systems Incorporated into MCFRS Risk Analysis [2B.5]

Fire protection systems are incorporated into the risk assessment as one of several elements of risk comprising the overall fire risk within each risk management zone (RMZ). The risk assessment includes a fire risk element examining whether the predominant residential-zoned housing stock within a given RMZ is equipped with sprinklers. Per County law and by Executive Regulation, newly constructed garden apartments and townhouses built since 1988, and newly constructed single-family homes built since 2004, must be sprinklered. Residences of these types built before the respective dates are considered non-sprinklered; although a small percentage of residences - primarily single-family homes - have been equipped with sprinklers in cases where systems had been desired by new home purchasers and specified within new home contracts. Sprinkler systems have been required in newly built residential and office high-rises since 1974, with retrofitting of office high-rises required since 1987.

Fire detection systems are not specifically incorporated into the risk assessment because these systems have been included in new construction of all types within Montgomery County for many decades, and smoke alarms were retroactively required in existing commercial and residential occupancies since 1978. While a small percentage of residences at any given time may lack smoke alarms despite the mandate, the MCFRS risk assessment includes an assumption that all residences are equipped with smoke alarms since it is too difficult, on an ongoing basis concerning over 375,000 residential units County-wide, to determine and record which do not. When MCFRS personnel encounter a residence lacking a smoke alarm during home safety visits or actual incidents, they install a free smoke alarm before departing the premises whenever practicable (except during most EMS incidents when quick departure is required).

As outlined in the Methodology of Identifying, Assessing, Categorizing, and Classifying Risks [CC 2B.1] section of this CRA/SOC, the following table documents the points assigned:

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Predominant residential zoned housing stock within a box area (RMZ) is sprinklered	SFH's built beginning in 2005 & garden apts. and townhouses built beginning in 1989 shall be considered sprinklered.	Sprinklered = 0 points Not sprinklered = 3 points
--	--	--

In 2014 MCFRS leadership implemented the Multi-Family Inspection Initiative with the intent of having first-due companies inspect all garden style and low-rise apartment buildings in an effort to build a database that included fire protection and inspection systems documentation. Prior to this initiative, this type of data was only available for high-rise occupancies. This initiative was successful, and the data collected was included in the MCFRS fire risk analysis.

Montgomery County Fire and Rescue Service

Fire Chief's General Order

Rescinded on 7/22/15 **NUMBER: 14-18**
October 10, 2014

TO: All MCFRS Personnel
FROM: Fire Chief Steve Lohr *Steven E. Lohr*
SUBJECT: Multi-Family Inspection Initiative

In an attempt to address the hazards caused by fire in multi-family dwellings, MCFRS has embarked on an initiative to inspect all multi-family occupancies in Montgomery County.

Identification of Multi-Family Dwellings

Each Station Officer must ensure that all multi-family dwellings in the station's first-due area are identified and that the corresponding data is collected and reported in the manner prescribed in the training video by December 31, 2014. Station Commanders must coordinate this effort to avoid duplication of effort among shifts. Fire Code Compliance will then use the collected data to build a comprehensive database that will also include data from GIS and Housing Department sources.

Training

A training video explaining the initiative and the responsibilities of field personnel is located on *quicklinks* at: <http://youtu.be/nKbZG5dpHUG>

Inspection of Multi-Family Dwellings

The Fire Code Compliance Section will be responsible for inspecting all identified multi-family occupancies.

Attachment: Hard copy Data Collection Form

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Example of raw collected Multi-Family Initiative data which was eventually geocoded:

Station Area #	Street Num.	Street Name	Suf -fix	# of Storie s (in the front)	# of Storie s (in the rear)	Total # of units in building	Is there a fire alarm system ?	sprinkler system?	Stand-pipe?
2	912	Prospect	ST	2	2	4	No	No	No
2	918	Prospect	ST	2	2	3	No	No	No
2	2	Quebec	TE RR	2	2	4	No	No	No
2	1000	Quebec	TE RR	3	3	10	Yes	No	No
2	1002	Quebec	TE RR	3	3	10	Yes	No	No
2	1005	Quebec	TE RR	2	2	4	No	No	No
2	1006	Quebec	TE RR	3	4	14	Yes	No	No
2	1008	Quebec	TE RR	3	4	14	Yes	No	No
2	1009	Quebec	TE RR	2	2	4	No	No	No

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Assessment: Critical Infrastructure in RMZs for Capabilities in Meeting Risks [2B.6]

Based on the intent of this PI, as provided in the June 26, 2017 CFAI 9th edition FESSAM Interpretation Guide, MCFRS has assessed its critical infrastructure “that is essential to reaching, controlling, and terminating incidents at risks.” Additional guidance on the focus of MCFRS’ assessment was gleaned from the Department of Homeland Security (DHS) 2015 Emergency Services Sector Specific Plan (ESSSP), and specifically the following description of identifying these infrastructure:

“ESS assets, systems, and networks comprise physical, cyber, and human components, each of which contains a variety of specific elements that contribute to the function and protection of the sector ([see the sector snapshot](#)). To ensure effective critical infrastructure activity and resource management, the ESS must be able to identify, gather, validate, and update pertinent information on the sector’s assets, systems, and networks. The key is to identify the specific infrastructure components that, in their incapacitation or destruction, would result in a debilitating impact on the Nation’s security, national economic security, national public health and safety, or public confidence. This perspective of infrastructure criticality is not confined to the national level, but is also present at the regional, State, and local levels.”

Based upon the aforementioned guidance and definition, MCFRS has determined and assessed the following critical infrastructure which are essential to reaching, controlling, and terminating incidents occurring at risk locations and, subsequently, meeting its mission.

County-wide critical infrastructure (not limited to a planning/risk management zone):

- Highway/street network
- Utilities: water, electric, gas
- Communication systems:
 - MCFRS radio sites
 - MCFRS data centers (“server farms”)

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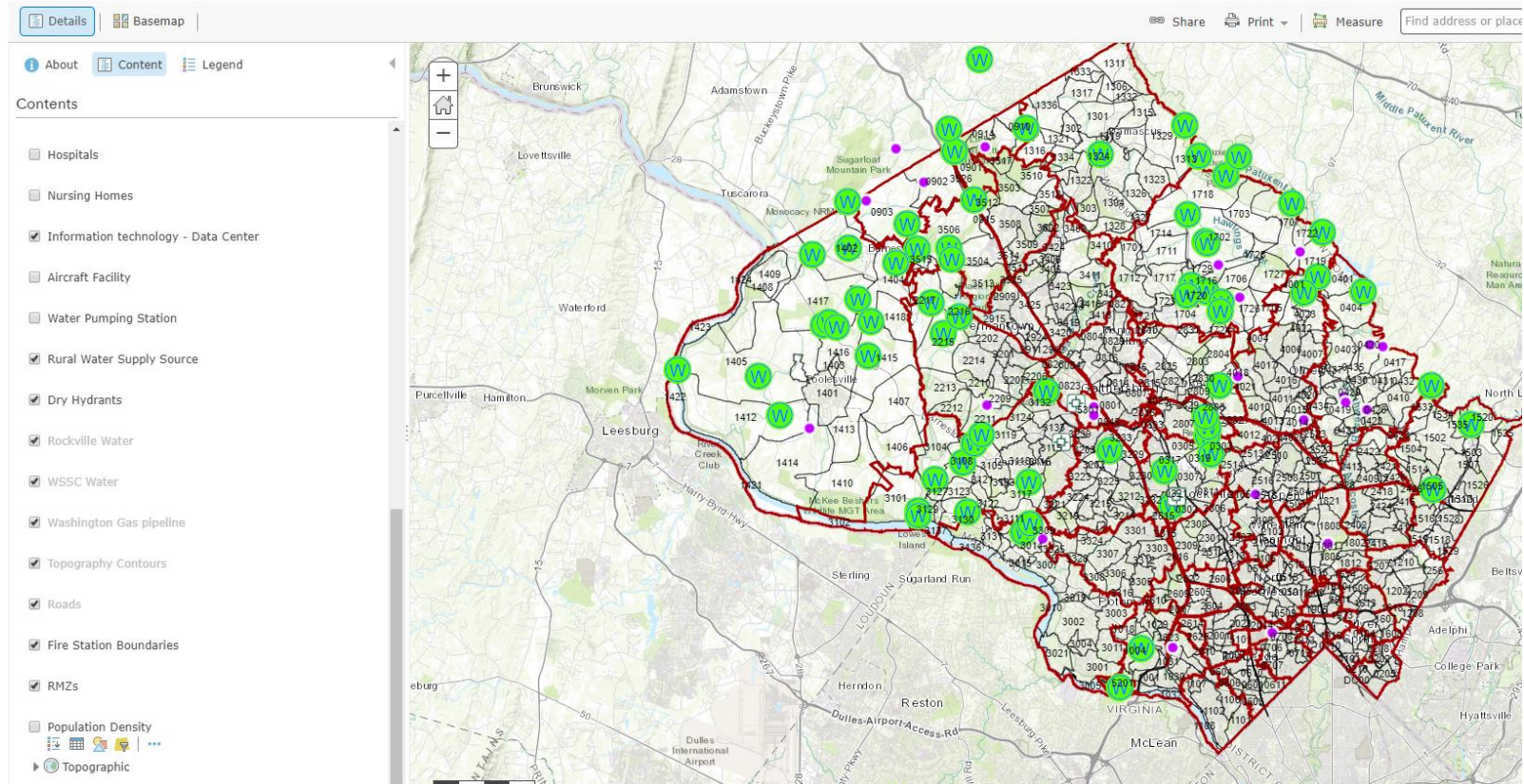
Critical infrastructure in specific locations and within specific MCFRS planning/risk management zones:

- MCFRS facilities: 37 stations, ECC, PSHQ, Logistics/CMF, PSTA, FEI, Dover Road Warehouse
- Federal fire stations: Stations 50-54
- Refueling facilities: fire station sites and MCDOT sites/depots
- Drafting sites, cisterns, dry hydrants, and fire hydrants
- Hospitals and the Adventist HealthCare Germantown Emergency Center (GEC)

The following page provides the reader with a screenshot of the MCFRS Critical Infrastructure ARC GIS online map, which enables the agency to assess these critical infrastructure elements within its planning zones.

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ArcGIS Critical_infrastructure_map



Screenshot of the MCFRS Critical Infrastructure ARC GIS online map

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VIII. MCFRS Current Deployment and Performance [Criterion 2C]



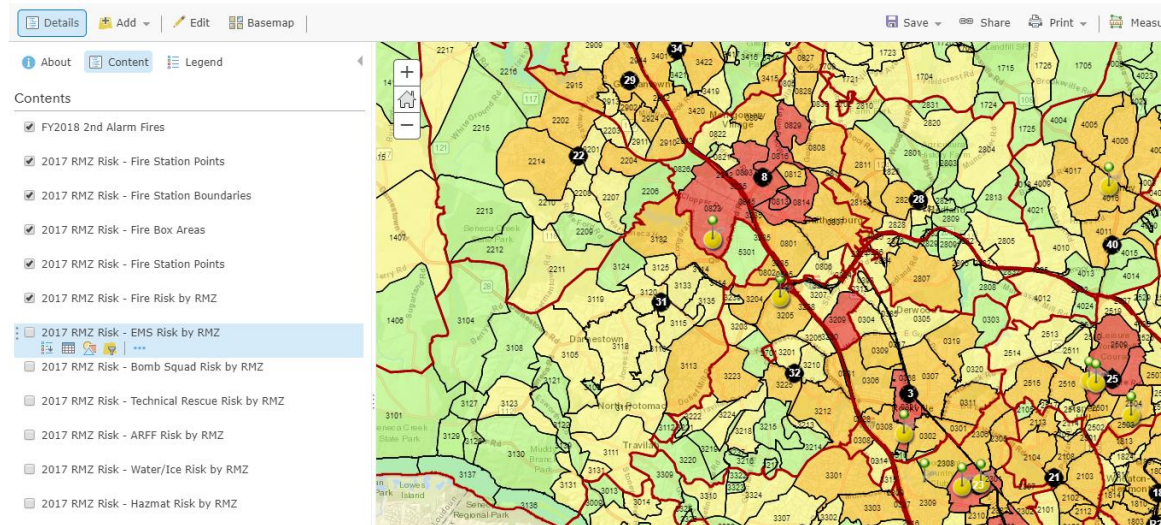
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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

MCFRS Methodology: Consistent Provision of Service Levels in all Programs[CC 2C.1]

MCFRS has a documented and adopted methodology for determining response strategies for the provision of consistent service levels throughout the County for the department's 21 emergency response programs. The overall methodology includes two components: 1) a methodology to ensure the department's community risk assessment is periodically updated, and 2) a methodology that verifies and validates that resources are optimally deployed to provide consistent service levels throughout the County through response coverage strategies. Each component is described below.

ArcGIS ▾ 2017_RMZ_Risk-2nd Alarms [✎](#)



This is a screenshot depicting a portion of the 12 second alarm or greater fires thus far in Fiscal Year 2018 on the updated Community Risk Assessment Map with the Fire Risk layer enabled. All 12 of these significant building fire incidents thus far have fallen within defined Special and High Risk Management Zones. Not one has fallen within Moderate or Low Risk Zones, thus validating the methodology utilized to define community fire risk locations.

The first methodology involves ongoing efforts by the MCFRS Accreditation Manager, GIS specialist, IT data team, and others to update the community risk assessment.

During the current accreditation cycle, these individuals have revised and improved the risk assessment framework, including revision of risk criteria, development of a new risk scoring system, and development of improved risk maps (i.e., content, format and scale).

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

The following 2016 email from the GIS Specialist to the Fire Chief displays MCFRS' commitment to an ongoing methodology of continuing to evaluate and update risk assessments throughout the life-cycle of the MCFRS Community Risk Assessment: Standards of Cover. The map screenshots after this email depict the older population density zones and the new and adopted population density zones.

From: Ierley, Sarah
Sent: Friday, May 20, 2016 3:58 PM
To: Goldstein, Scott <Scott.Goldstein@montgomerycountymd.gov>
Cc: Vlassopoulos, Demetrios (Jim) <Demetrios.Vlassopoulos@montgomerycountymd.gov>; Gutschick, Scott <Scott.Gutschick@montgomerycountymd.gov>
Subject: Proposed Population Density Zones

I recently reviewed my methodology for calculating the population density zones. In doing so, the population density zones changed. The new methodology and resulting zones are more accurate and easier to keep updated. Attached you will find two maps – the current zones and the proposed zones. Here is a break down in the change of calculation:

Current Population Zones

I calculated the population density and zone for each Census block area. Then for each box area, I added up the total mileage of the Census block areas. I assigned the population zone that had the largest square mileage percentage for the box area.

Proposed Population Zones

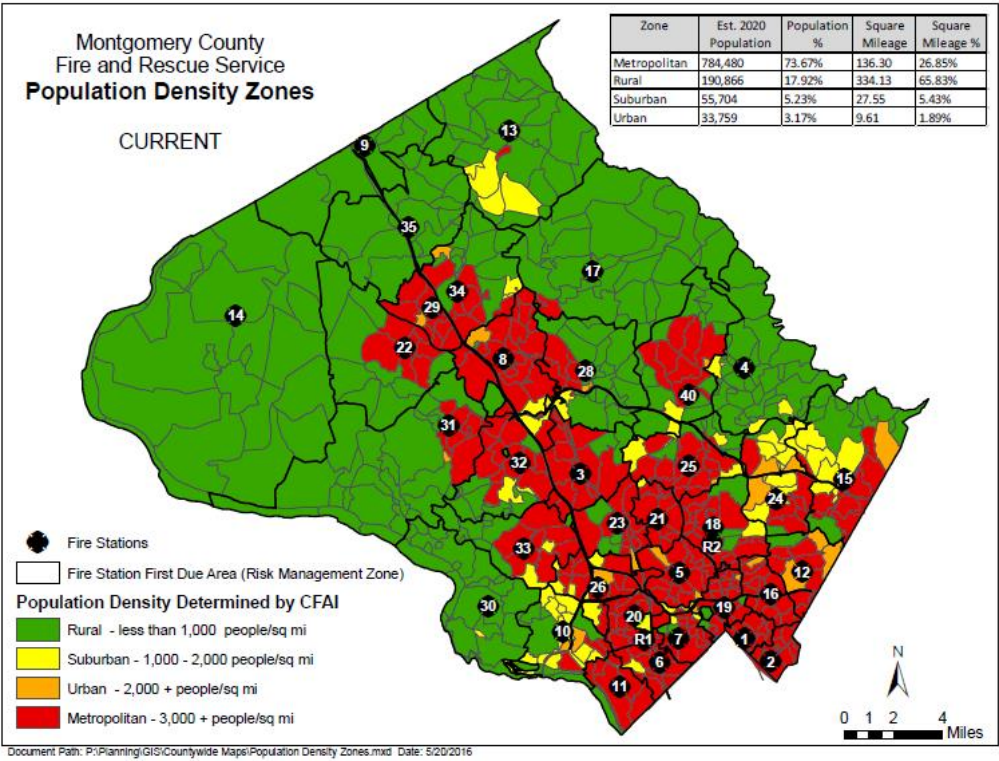
I run a script that determines the total population in the box area. The script basically cuts the Census blocks and assigns the population to each Box Area. The total population determines the population zone.

The proposed population zones result in more accurate data and in increase in the amount of urban and suburban zone.

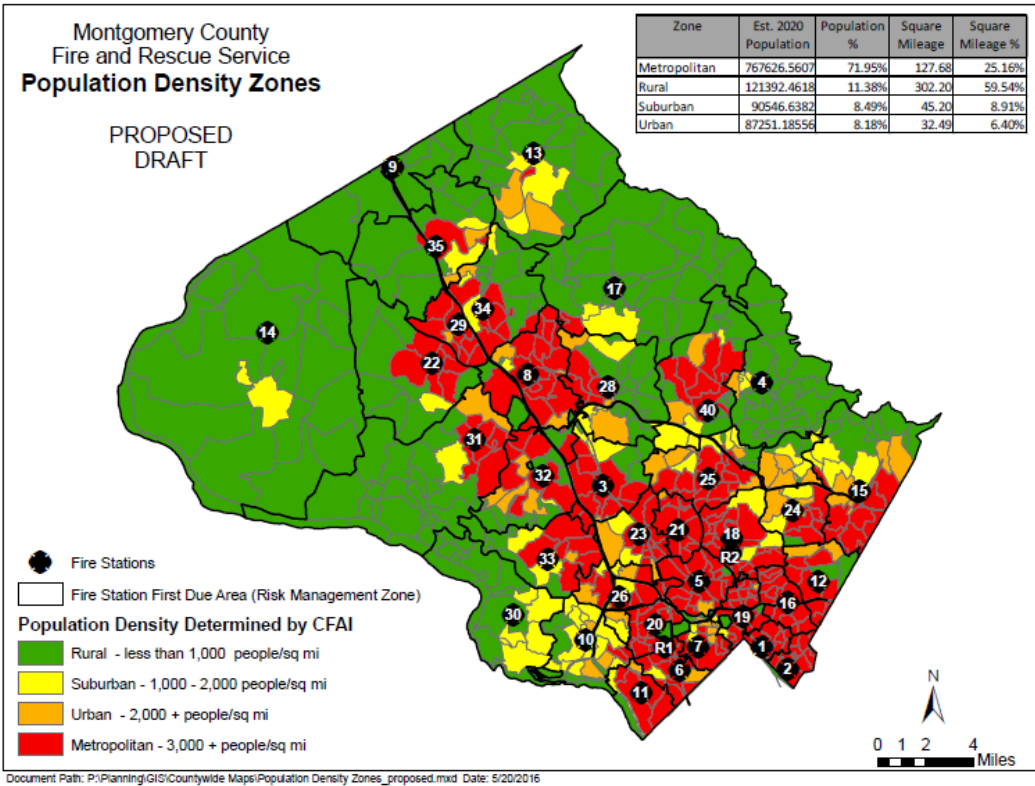
Jim and Scott have reviewed the zones and approve. If we have your approval, I'll move forward with using these zones.

Please let me know if you have any questions –
Sarah

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Older Population Density Zone Map



New and current Population Density Zone Map

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

The second methodology is more complex, consisting of the following elements: risk assessment (focusing on the components and results of the risk assessment versus the process for updating it as described above), needs assessment, financial analysis, and planning and implementation. Each element is comprised of several sub-elements which are addressed by the combined efforts of the Office of the Fire Chief (i.e., Planning and Accreditation Section), Operations Division (i.e., EMS Section, Special Operations Section, Field Operations, and Communications Section), Support Services Division (i.e., IT Section, Facilities Section) and the Fiscal Management Division. Online viewers of this Community Risk Assessment: Standards of Cover manual are encouraged to click on the hyperlink to be directed to a document listing the [MCFRS Methodology for the Provision of Service Levels](#).

The following email from the Operations Division Chief provides an example of the aforementioned MCFRS “second methodology” of assuring this agency “continually verifies and validates that the available resources are optimally deployed to mitigate identified emergencies”. The sentence in quotations is extracted from the Core Competency 2C.1 section of the CPSE 6th Edition Community Risk Assessment: Standards of Cover manual, page 31.

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

From: Kinsley, John

Sent: Monday, June 19, 2017 11:21 AM

To: #FRS.ASSISTANT CHIEFS <#FRS.ASSISTANTCHIEFS@montgomerycountymd.gov>;

#FRS.Battalion Chiefs <#FRS.BATTALIONCHIEFS@montgomerycountymd.gov>;

#FRS.Volunteer Chiefs <#FRS.VolunteerChiefs@montgomerycountymd.gov>

Cc: Vlassopoulos, Demetrios (Jim) <Demetrios.Vlassopoulos@montgomerycountymd.gov>

Subject: CAD Changes - Light Smoke on High Rise and High Life Hazard Occupancies

After discussion with the Fire Chief, consideration of opinions on both sides of this issue and review of the data over the past 18 months, we are going to eliminate the “light smoke” adaptive response plans for high rise buildings and high life hazard occupancies. Any smoke conditions in these buildings will be dispatched as full assignments, *effective June 19, 2017*.

Data shows a very low error rate for the “light smoke” adaptive dispatch assignments for most occupancy types; less than 1% of these incidents are upgraded to a full assignment and less than 0.5% were actual working fires.

However, the error rate for high rise and high life hazard occupancies is 6 times that of other occupancy types.

Please be aware that the determination of what is a “high rise building” and “high life hazard occupancy” is driven by EFD questions of the caller:

2. What type of building is involved?
3. How many floors or stories are there?

High Rise = 5 or more stories

High Life Hazard = churches, hospitals, large apartment complexes, lodging locations, nursing homes, & schools

We will continue to monitor the effectiveness of this change over the next 12 months and make any other changes necessary to improve our accuracy and ability to assemble an effective response force in a timely manner at all working fires.

Division Chief John Kinsley, MS, EFO
Montgomery County Fire & Rescue Service
Division of Operations
100 Edison Park Drive, 2nd Floor
Gaithersburg, Maryland 20878
240-777-2395 (office)
240-328-9560 (cell)
215-392-7135 (eFax)
john.kinsley@montgomerycountymd.gov

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The following chart depicts the dispatched incident call load for MCFRS across three calendar years. The highlighted row is provided to display the significant reduction of the robust High-Risk Fire Full Assignment dispatches from CY15 through CY17. The methodology employed to reduce these was changing “light smoke conditions” from a FFA to an Adaptive 2-3 response and confirms compliance to this core competency PI.

CY 2015		CY 2016		CY 2017	
Call Type Group 3		Call Type Group 3		Call Type Group 3	
Program	Incident Count	Program	Incident Count	Program	Incident Count
Adaptive A1F	1,676	Adaptive A1F	1,793	Adaptive A1F	1,685
Adaptive A1N	11,289	Adaptive A1N	11,667	Adaptive A1N	11,335
Adaptive A2-3	1,949	Adaptive A2-3	2,587	Adaptive A2-3	2,493
ALS1	32,187	ALS1	33,753	ALS1	36,370
ALS2	5,789	ALS2	5,603	ALS2	4,719
AFR-HR	0	AFR-HR	0	AFR-HR	0
ARF-SR	2	ARF-SR	1	ARF-SR	0
BLS	49,516	BLS	51,996	BLS	51,946
Bomb Squad	492	Bomb Squad	585	Bomb Squad	269
FFA SRHR	56	FFA SRHR	52	FFA SRHR	50
Full Assignment	962	Full Assignment	569	Full Assignment	579
Hazmat-LR	11	Hazmat-LR	11	Hazmat-LR	8
Hazmat-MR	92	Hazmat-MR	86	Hazmat-MR	86
Hazmat-HR	47	Hazmat-HR	20	Hazmat-HR	13
Hazmat-SR	38	Hazmat-SR	39	Hazmat-SR	40
Service Call	8,614	Service Call	7,449	Service Call	7,749
System	111	System	74	System	54
Tech. Rescue	14	Tech. Rescue	9	Tech. Rescue	15
Water-Ice MR	17	Water-Ice MR	31	Water-Ice MR	14
Water-Ice HR	4	Water-Ice HR	4	Water-Ice HR	6
Water-Ice SR	49	Water-Ice SR	45	Water-Ice SR	52
In-County Total	112,915	In-County Total	116,374	In-County Total	117,483
Out of County & Federal FD Mutual/Auto Aid	3510	Out of County & Federal FD Mutual/Auto Aid	3999	Out of County & Federal FD Mutual/Auto Aid	3450
Total	116,425		120,373		120,933

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Methodology for Monitoring Quality of Emergency Response Performance [CC 2C.2]

MCFRS employs several methods for monitoring the quality of its emergency response performance, including tracking of “headline” and “supporting” performance measures (reported quarterly and annually to CountyStat) and tracking of performance within divisions/sections via dashboards (reported to MCFRS managers during quarterly briefings). Other methods include monitoring of daily response time reports for fire-full assignment and ALS2 events, regular monitoring of 90th percentile response times by emergency program in comparison to baselines and benchmarks, regular monitoring of unit availability/reliability, and periodic monitoring of customer feedback from surveys. Due to the large number of planning areas (i.e., 850 risk management zones) in the County, the department does not monitor the quality of emergency response performance for each program area by RMZ as that would be approximately 18,000 separate data elements to monitor (21 programs X 850 RMZs). Regular monitoring of the quality of response performance of 21 emergency programs in terms of the four-defined population density zones, and periodic monitoring by fire station first-due areas, is more manageable and of greater usefulness to the department.

The following examples are provided to offer the reader an understanding of some of the systems used and the routine programmatic emergency response service delivery performance analysis which routinely transpires to monitor performance.

Each morning, a daily report is emailed to select managers pertaining to high- and special-risk reported structure fire events from the previous 24-hours. The report provides granular unit response timestamps for each incident occurring. The report, in PDF format, is automatically emailed to appropriate stakeholders. Through this methodology, the Accreditation Manager (AM) visually reviews phone-to-dispatch and travel timestamps. If any travel time is significantly outside of normal limits, the AM documents on a tracking sheet and notifies the appropriate Duty Operations Chief (an Assistant Chief) for further investigation. If a unit’s arrival on-scene (AOS) timestamp is incorrect (e.g., MDC not working, dispatcher didn’t place the unit on-scene when they arrived, etc.) and

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

the officer in-charge (OIC) of the unit confirms this, the OIC is authorized to correct the time in the RMS. If the unit actually had a long response time, the data is left as is. Correcting erroneous AOS timestamps, especially for smaller datasets such as structure fire incidents, helps validate an accurate performance assessment at the 90th percentile fractal.

-----Original Message-----

From: FRS-NoReply@App.MontgomeryCountyMD.gov [mailto:FRS-NoReply@App.MontgomeryCountyMD.gov]
Sent: Sunday, December 31, 2017 10:00 AM
Subject: MCFRS Fire Response Time Detail Report

12/31/2017 10:00:26

MCFRS Fire Response Time Detail Report FFA SRHR Shift Date: 12/30/ 2017 Shift: C

Unit	Phone To Dispatch Meet (2:00)	Turnout Meet (1:30)	Travel	** Phone To Onscene Meet (6:20 / 10:20) (7:30 / 11:30)	Cancelled?
17-0062063 12/30/2017 09:41:21 Box Area: 08-13 417 RUSSELL AVE Call Type: HIGH RISE STRUCTURE FIRE Initial Call Type: STRUCTURE FIRE					
Phone To Pending: 1:04		Incident Type (Cleared as): 113 Cooking fire, confined to container			
* A708	2:12	0:10 Y	2:40	5:02 Y	
AT703	2:12	0:12 Y	9:05	11:29	
BC704	2:12	0:29 Y			Cancelled
BC705	2:12	0:28 Y	6:37	9:17 Y	
E703B	2:12	1:13 Y	6:40	10:05 Y	
E722	2:12	1:25 Y			Cancelled
E729	2:12	0:54 Y	7:37	10:43	
E753	2:12	0:20 Y	6:24	8:56	
PE728	2:12	0:33 Y	8:05	10:50	
PRS703	2:12	0:09 Y	8:18	10:39	
T731	2:12	1:18 Y	8:23	11:53	
T734	2:12	0:24 Y	6:48	9:24 Y	
I724	26:34	0:05 Y	98:13	124:52	
EMS704	3:27	0:00 Y	7:20	10:47	
E734	5:13	0:04 Y	4:39	9:56 Y	
BC703	6:37	0:00 Y	1:59	8:36 Y	
C703	8:49	0:00 Y			

First Arriving Engine Response Time: 8:56 NFPA1710 Staffing: N

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

12/31/2017 10:00:26

MCFRS Fire Response Time Detail Report FULL ASSIGNMENT Shift Date: 12/30/ 2017 Shift: C

Unit	Phone To Dispatch Meet (2:00)	Turnout Meet (1:30)	Travel	** Phone To Onscene Meet (6:20 / 10:20) (7:30 / 11:30)	Cancelled?
17-0062078 12/30/2017 16:33:38 Box Area: 08-08 8966 CENTERWAY RD Call Type: BUILDING FIRE Initial Call Type: BUILDING FIRE Phone To Pending: 1:15 Incident Type (Cleared as): TBD TBD					
CT708	14:12	4:20			
A734	2:24	0:09 Y	7:23	9:56 Y	
AT740	2:24	1:30 Y	16:32	20:26	
BC702	2:24	1:58			
BC704	2:24	0:20 Y			Cancelled
E729	2:24	0:47 Y	9:51	13:02	
PE717	2:24	0:27 Y	12:01	14:52	
PE734	2:24	0:15 Y	7:16	9:55	
PE735	2:24	1:18 Y	14:52	18:34	
PE740	2:24	0:20 Y	14:30	17:14	
RS717	2:24	3:37	3:15	9:16 Y	
* T734	2:24	0:09 Y	3:15	5:48 Y	
EMS704	3:53	0:00 Y	15:30	19:23	
FM732	41:43	0:13 Y	10:33	52:29	
PE728	44:18	0:00 Y	0:00	44:18	
C708	5:00	0:00 Y	10:14	15:14	
BC705	6:02	0:00 Y	13:26	19:28	
M729	6:23	0:34 Y	10:39	17:36	
RS729	6:23	0:08 Y	6:26	12:57	
T725	6:23	1:05 Y	13:18	20:46	
DC700	7:09	0:00 Y	7:42	14:51	

The following graphic is an example of the actual online tracking sheet used to document long travel times (related to a unit's arrival on-scene timestamp) and whether the outlier data was deemed incorrect and was corrected.

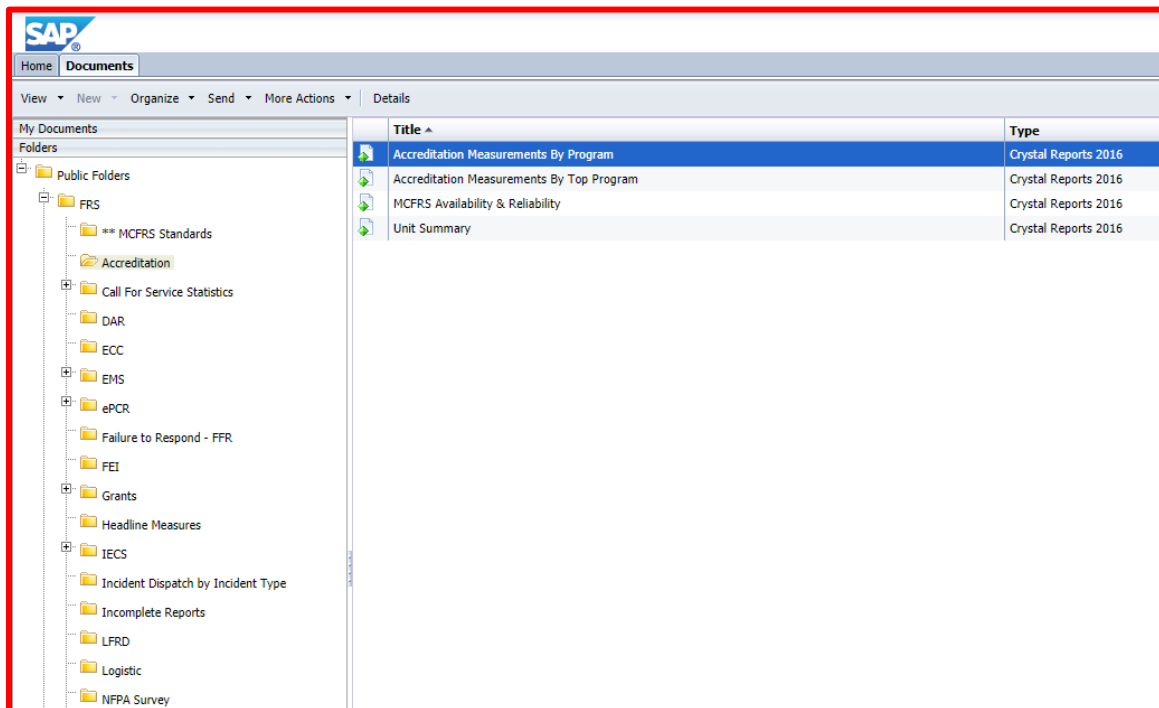
The green-shaded rows indicate confirmed erroneous outlier AOS times which had been corrected by the appropriate OIC or, with approval, the data analyst.

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

The Accreditation Manager also routinely uses sophisticated Crystal Reports designed by the MCFRS IT/data team to validate performance and/or define outlier response time performance needing further scrutiny.

The following screenshots depict the Crystal Reports interface, the inputs for measuring the effective response force (ERF) of the MCFRS program Fire Full Assignment, Special Risk High-Rise (FFA-SRHR) on December 30, 2017, and the ERF performance. This incident is also seen in the daily emailed PDF example on a previous page.

For MCFRS, the ERF for these types of reported incidents is the timestamp of the last unit to arrive on-scene of 5-engines, 3-aerials, 1-heavy rescue squad, 2-chief officers, and 1-EMS transport unit.



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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Enter Values	
BeginDate (mm/dd/yyyy)	@startdate
<input type="text" value="12/30/2017"/>	<input type="checkbox"/> Set to Null
EndDate (mm/dd/yyyy)	@enddate
<input type="text" value="12/30/2017"/>	<input type="checkbox"/> Set to Null
geographictype	@geographictype
<input type="text" value="box_area"/>	
Enter a Value:	
<input type="text" value="box_area"/>	<input type="checkbox"/> Set to Null
programid	@pgmid
<input type="text" value="33 - FFA_SRHR"/>	
Enter a Value:	
<input type="text" value="33"/>	<input type="checkbox"/> Set to Null
fractile/average	@percentagetype
<input type="text" value="90 - 90% Fractile"/>	
Enter a Value:	
<input type="text" value="90"/>	<input type="checkbox"/> Set to Null
firstarv / effectiveresponseforce	@measuresuretype
<input type="text" value="erf_total_response - Effective Response Force (ERF)"/>	
Enter a Value:	
<input type="text" value="erf_total_response"/>	

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

This is the output for the ERF report ran for 12/30/17 for Fire Full Assignment, Special Risk High-Rise. The ERF was 11:53 total response time of the last unit to arrive of 5-engines, 3-aerials, 1-heavy rescue squad, 2-chief officers, and 1-EMS transport unit:

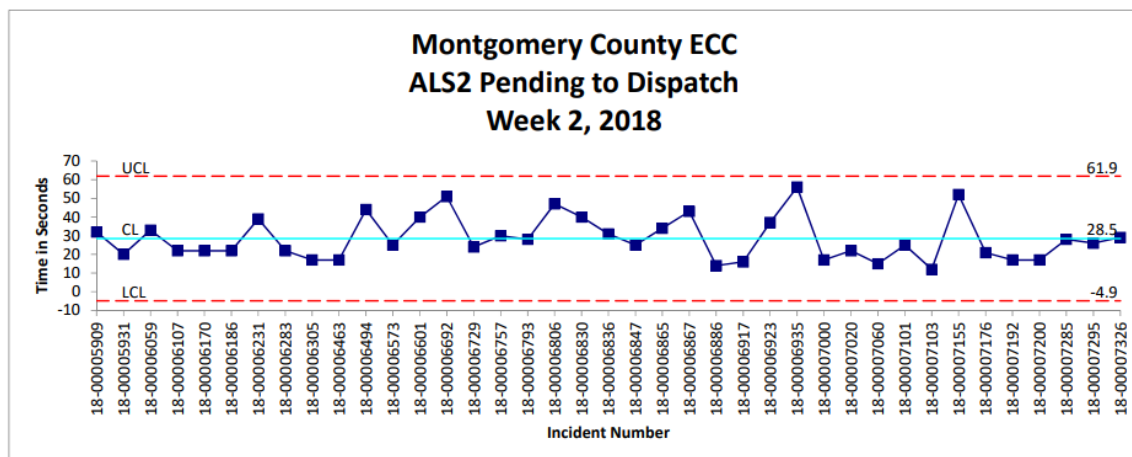
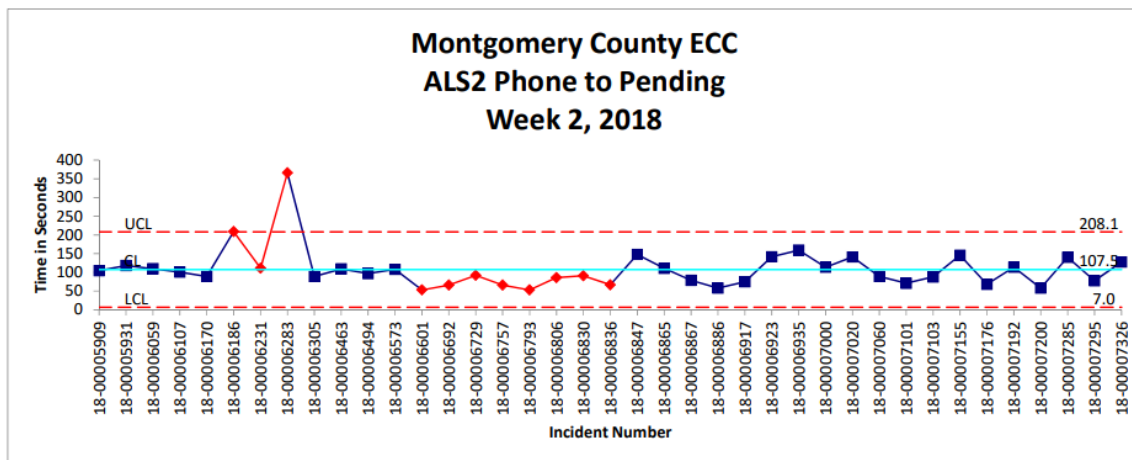
Accreditation ERF Total Response				
Incident Date: 12/30/2017 To 12/30/2017				
Program: ERF_TOTAL_RESPONSE				
<u>Geographic Type</u>	<u>*Total Incident Count</u>	<u>Program Type</u>	<u>Measure Type</u>	<u>Response Time</u>
0813	1	FFA_SRHR	90	00:11:53

The following is another example of routine performance monitoring. In this case the Calendar Year 2017 first-arriving engine 90th percentile total response time to reported special risk high-rise incidents by station Risk Management Zone response areas are depicted:

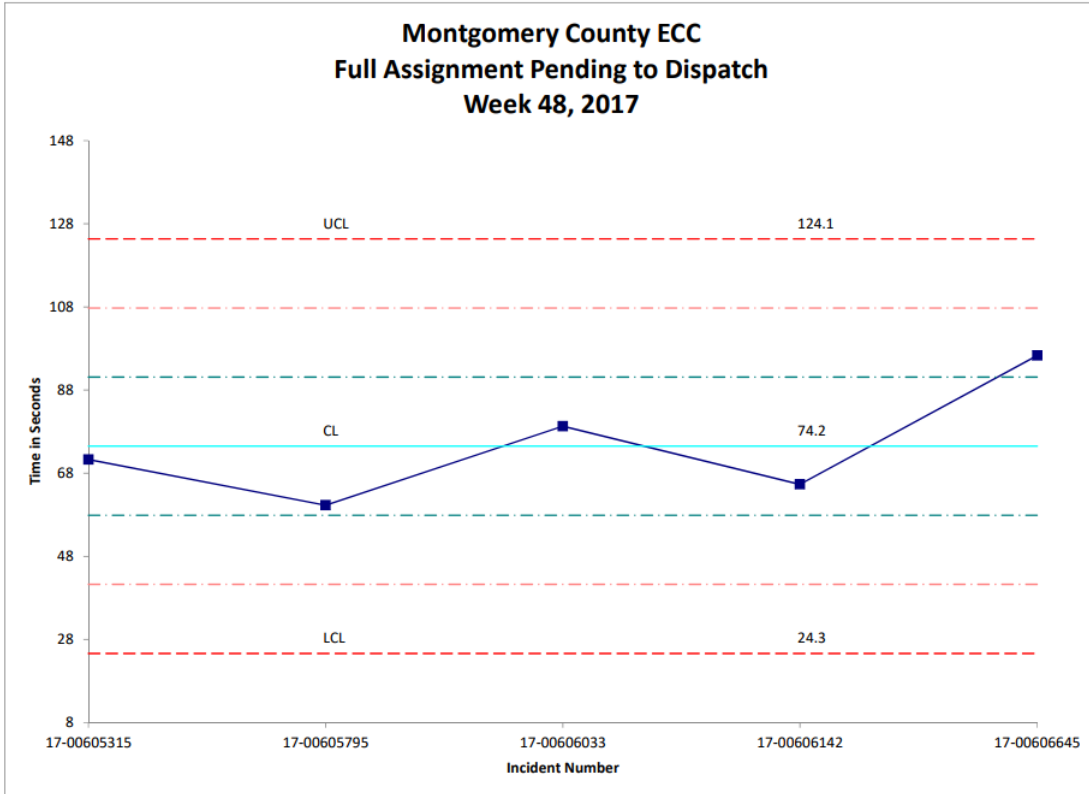
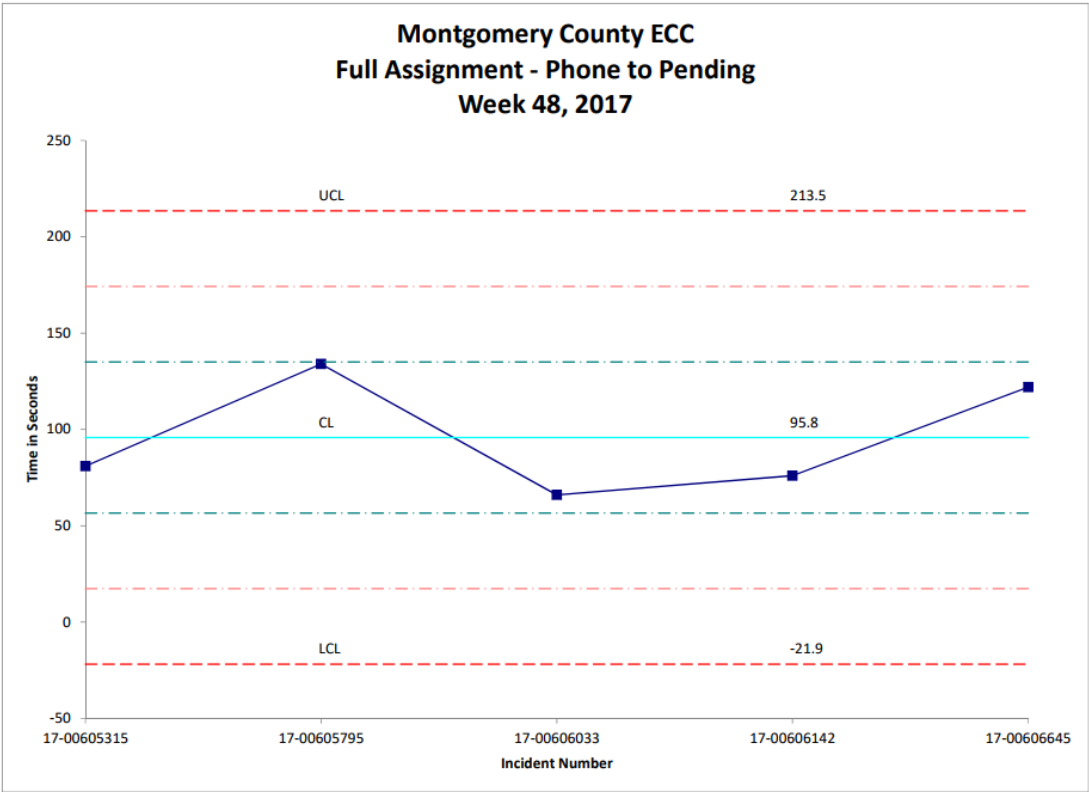
Accreditation First Arriving Total Response				
Incident Date: 01/01/2017 To 12/31/2017				
Program: TOTAL_RESPONSE				
<u>Geographic Type</u>	<u>*Total Incident Count</u>	<u>Program Type</u>	<u>Measure Type</u>	<u>Response Time</u>
01	10	FFA_SRHR	90	00:08:13
02	1	FFA_SRHR	90	00:03:50
06	3	FFA_SRHR	90	00:08:20
08	1	FFA_SRHR	90	00:08:56
12	5	FFA_SRHR	90	00:09:19
15	1	FFA_SRHR	90	00:05:54
16	4	FFA_SRHR	90	00:08:08
18	2	FFA_SRHR	90	00:06:46
19	2	FFA_SRHR	90	00:07:32
20	2	FFA_SRHR	90	00:07:38
22	1	FFA_SRHR	90	00:09:37
23	4	FFA_SRHR	90	00:07:34
25	3	FFA_SRHR	90	00:08:05
29	3	FFA_SRHR	90	00:08:34
32	3	FFA_SRHR	90	00:08:43
33	1	FFA_SRHR	90	00:10:05
34	1	FFA_SRHR	90	00:07:46

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Here is another example of MCFRS' adopted methodologies for monitoring emergency service delivery response performance. These examples are applicable to the 911 call-processing component of the total response time continuum and are employed by the Emergency Communication Center (ECC) Professional Standards Unit. It involves weekly performance charting of high risk ALS and structure fire call-processing times. When thresholds are exceeded, an in-depth review of those incident(s) transpires with the intent of learning causes and improving processes, training, and/or employee behavior.



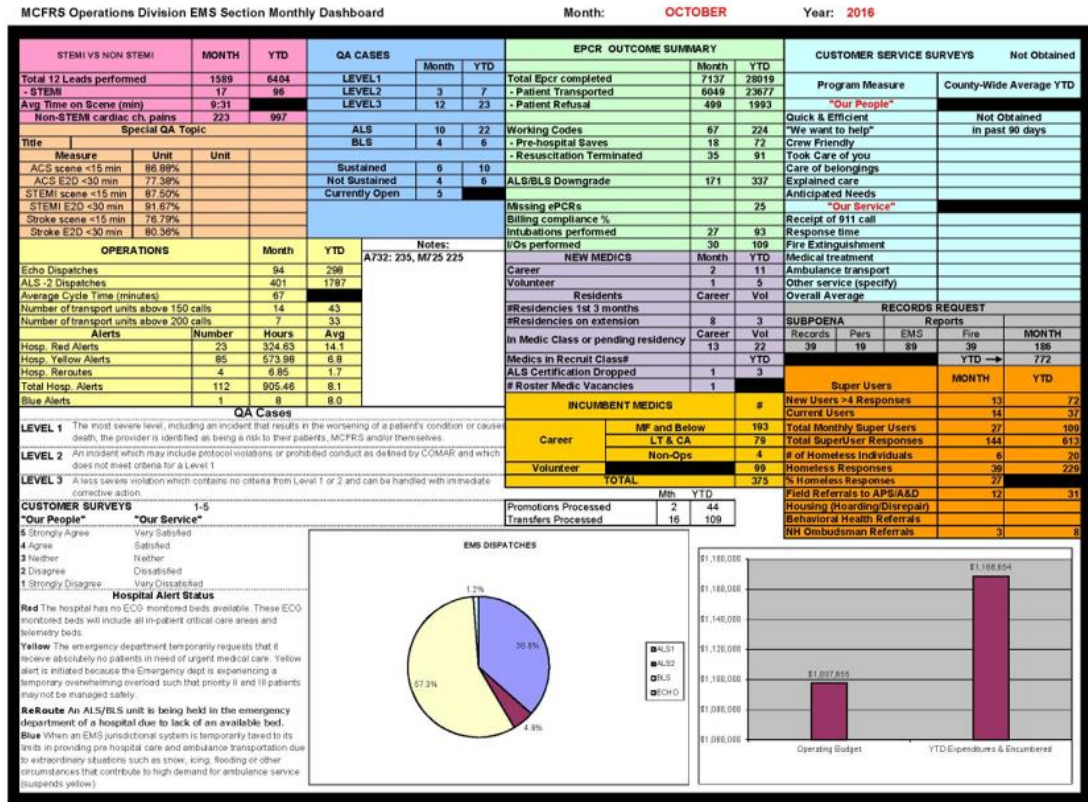
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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER



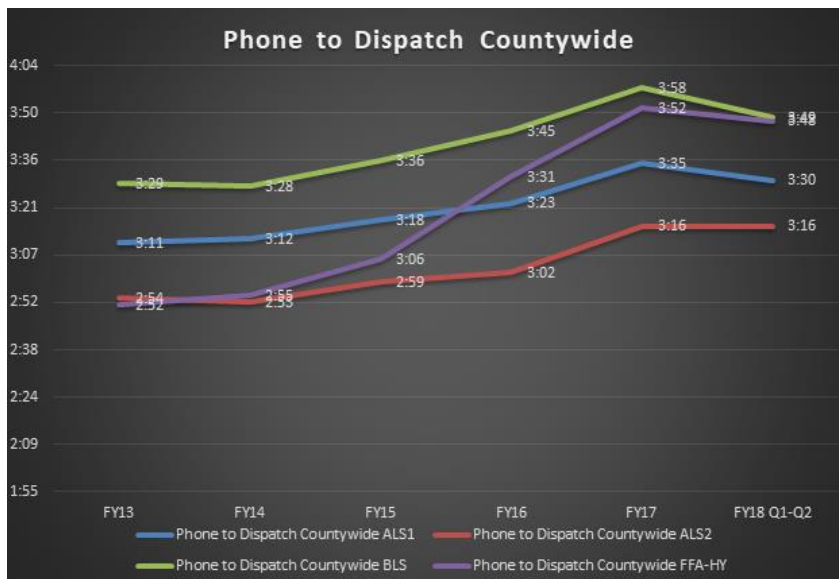
MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Other examples of these effective methodologies include:

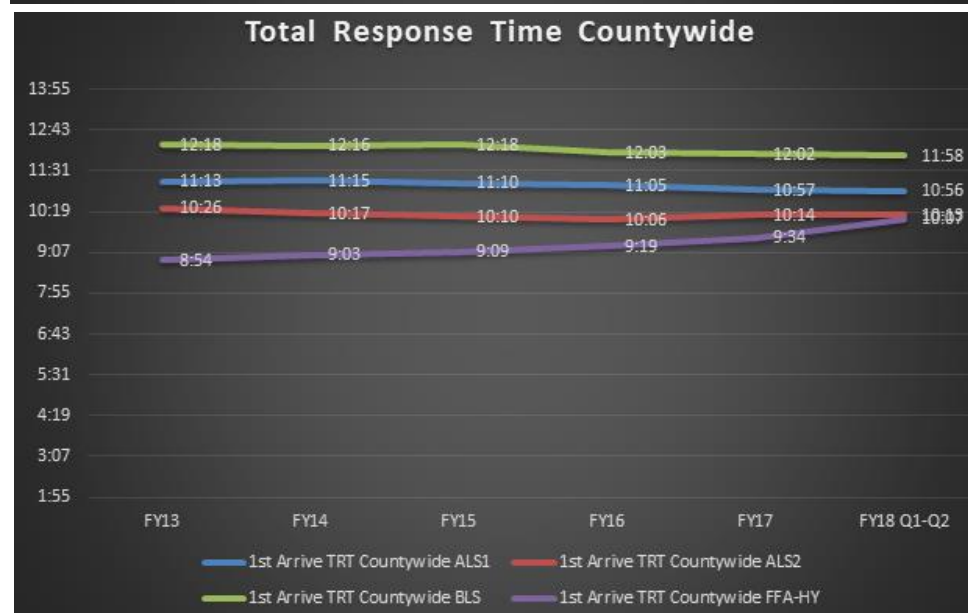
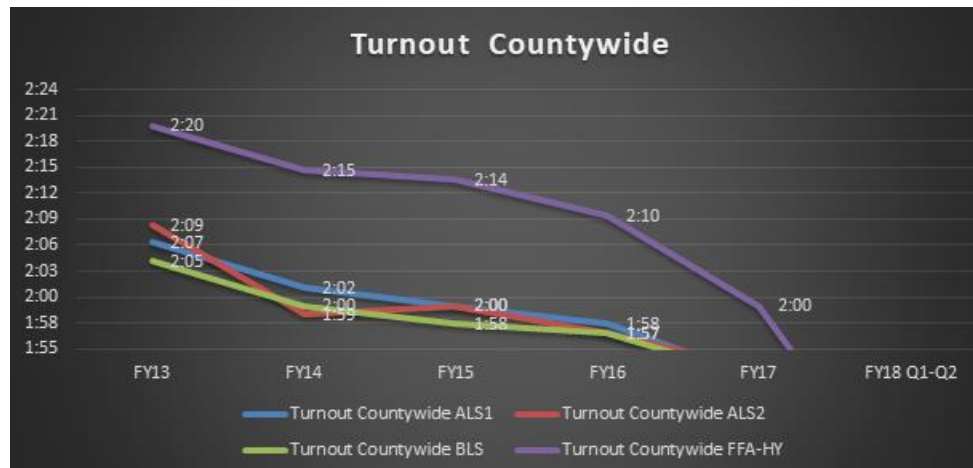
Quarterly Leadership Briefing dashboards (this example is the EMS Section)



Accreditation Manager analysis for Operational Leadership:



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[EMS Office of Quality Assurance:](#)

MCFRS EMS OPS BLOG

Actionable news and information for the providers of the EMS Operational Program of the MCFRS

[Home](#) [EVD Information](#) [Measles Information](#) [Nursing Home Issues Form](#)

Monday, January 8, 2018

EMS Matters January 8, 2018

Pasted below are the documented key performance indices for last month. Again please remember we're striving to achieve at least 90% in each category, and I know that the consult percentage should be higher because I hear you consulting but you haven't documented it on your report. Please document it in the Procedures & Treatment section of the e-PCR.

Looking at the data from coded patients we've worked notice we finished the year with a ROSC of slightly over 34% which is about 3.4% better than last year. For the last 4 years our percentage of ROSC with cardiac arrest patients has continued to increase every year. Please keep up the excellent work!

	Scene <15 min	Average scene time	E2D <30 min	Average E2D time	Acquire 12-lead	Transmi t 12- lead	Consult		ASA
STEMI	85%	11:14	85%	21:11	92%	73%	85%		100%

Links

- [MCFRS Controlled Medication Log](#)
- [Region V CHATS](#)
- [eMEDS on line](#)
- [EMS for Children Resource Page](#)
- [MIEMSS](#)

Blog Archive

- ▼ 2018 (2)
 - ▼ January (2)
 - [EMS Matters January 8, 2018](#)
 - [LP15 shutoff issue](#)
- 2017 (69)
- 2016 (79)
- 2015 (137)
- 2014 (98)
- 2013 (5)

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Operations Division monitoring of critical resource Availability and Reliability (the example provided below is a portion of CY2017 for first-due engine to reported structure fires within their upper tier Risk Management Zone – Station Response Area):

MCFR Availability - Reliability										
Start Date: 01/01/2017 End Date: 12/31/2017 Availability Program: FFA-Engine										
Availability				Reliability						
Geographic Type	Total Incidents	Count by 1st Due Unit	% Avail	Historic Baseline Performance	Reliability Count	Baseline Met Count	% Baseline	Benchmark Goal	Benchmark Met Count	% Benchmark
01	21	19	90.5%	9:05	19	16	84.2%	7:15	12	63.2%
02	28	28	100.0%	9:16	27	18	66.7%	7:15	16	59.3%
03	17	17	100.0%	10:53	15	11	73.3%	7:15	7	46.7%
04	10	10	100.0%	17:11	9	9	100.0%	9:45	6	66.7%
05	21	18	85.7%	9:41	18	16	88.9%	7:15	10	55.6%
06	21	21	100.0%	10:41	21	19	90.5%	7:15	12	57.1%
07	7	7	100.0%	9:13	7	5	71.4%	7:15	2	28.6%
08	56	48	85.7%	10:06	48	40	83.3%	7:15	18	37.5%
09	2	2	100.0%	19:57	2	2	100.0%	9:45	1	50.0%
10	8	6	75.0%	14:36	6	6	100.0%	8:30	4	66.7%
11	7	6	85.7%	9:03	6	5	83.3%	7:15	3	50.0%
12	36	31	86.1%	10:49	31	29	93.5%	7:15	18	58.1%
13	16	16	100.0%	17:11	16	15	93.8%	9:45	8	50.0%
14	5	5	100.0%	18:19	4	3	75.0%	9:45	1	25.0%
15	26	24	92.3%	10:21	23	17	73.9%	7:45	11	47.8%
16	11	11	100.0%	8:45	10	8	80.0%	7:15	5	50.0%
17	9	9	100.0%	12:51	9	8	88.9%	9:45	5	55.6%

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Protection/Detection Systems Considered Within Response Strategies [2C.3]

Montgomery County maintains stringent fire protection legislation that requires automatic fire protection sprinkler systems, not only in commercial, educational, high-rise, and manufacturing occupancies, but in all residential townhouses and low-rise apartments built after 1988 and all single-family detached dwellings built after 2004. The State of Maryland also enacted [statewide smoke alarm legislation](#) effective January 1st of 2018 requiring all residential occupancies to:

1. Replace battery-only operated smoke alarms with units powered by sealed-in, ten-year/long-life batteries with a “silence/hush” feature.
2. Upgrade smoke alarm placement in existing residential occupancies to comply with minimum specified standards. These standards vary according to when the building was constructed. The deadline for compliance with the new law was January 1, 2018.

MCFRS acknowledges that single-family homes have gotten larger and this trend has led to the “mansionization” of some new home developments. The average size of a single-family detached home built in the 1950s was 1,300 square feet (SF) compared to 3,200 SF for a detached home built in the 2000s. This trend has not only affected detached housing but also is occurring with the single-family attached products.

This data is of interest to MCFRS, particularly the fact that homes built in Montgomery County in the 2000’s are at least 2.5 times larger than in prior years. Underwriters Laboratories (UL) scientists, engineers, and researchers, along with fire service professionals, have recently (2013-2014) conducted extensive testing and analysis of modern fire dynamics within residential structures.

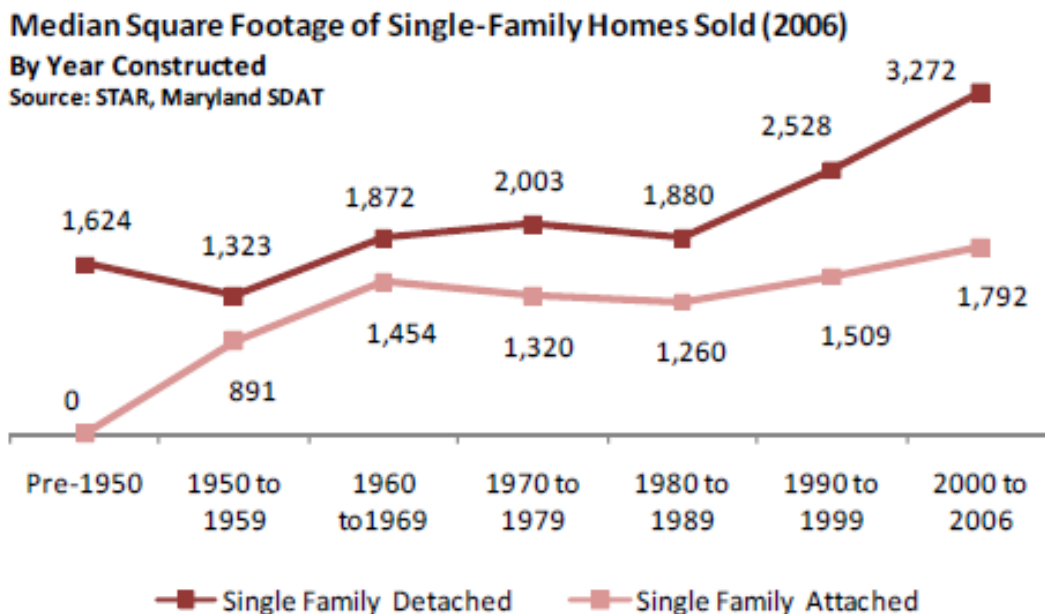
[The results of these tests](#) are astounding and confirm that the modern home fire is a “perfect storm” of conditions and outcomes: larger homes + open house geometries + increased fuel loads + new construction materials = faster fire propagation, shorter time to flashover, rapid

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

changes in fire dynamics, shorter escape times for occupants, and shorter structural collapse times.

MCFRS also acknowledges that while automatic fire protection systems, such as sprinkler systems, have many times extinguished fires while in the incipient stage or while still very small, numerous significant residential fires have begun on the exterior where there is no sprinkler system. MCFRS has a history of fighting significant and life-threatening residential fires in sprinklered occupancies where, for example, the fire begins on an exterior wooden deck, rapidly extends via the home's vinyl siding, through the soffits and into the attic.


To this end, MCFRS understands the importance of initially deploying an Effective Response Force (ERF) to a report of a structure fire in order to enhance life safety and property conservation, regardless whether the occupancy has an automatic suppression system. The UL studies authenticate MCFRS' categorization of these types of incidents as high- and special-risk. The MCFRS resource deployment model for these types of events are based on a sound critical task analysis and community risk assessment.



MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

On the other hand, MCFRS, through its continuous response and resources deployment analysis, does acknowledge an automatic fire alarm or sprinkler system activation without a secondary report of smoke or fire as a low-risk event. For a residential automatic fire alarm (AFA), MCFRS deploys only one engine company. For an AFA in a high-risk occupancy, such as a hospital or even occupied school, MCFRS only deploys one engine company and one special service company; thus, MCFRS does consider these situations its response strategies.

Finally, the following is a recent example of an occupied sprinklered garden apartment where MCFRS correctly initially deployed a Fire Full Assignment regardless of the occupancy maintaining a fire protection system:

MONTGOMERY COUNTY FIRE & EXPLOSIVES INVESTIGATION LOG	
BASIC EVENT INFORMATION	
OK for Public Release?	Yes
Fire Inc. #	1700619864
Inc. Date	12/28/2017
Inc. Type:	Multi-family Dwelling Fire
Address:	14327 Georgia Avenue
Event Summary: <p>On 12/28/17 at approximately 2115 hours, MCFRS units were dispatched to a building fire at the aforementioned address. Crews spent a considerable time searching for fire running the walls of a 4 story garden apartment resulting in a need for a 2nd alarm.</p> <p>FEI requested to the scene to conduct an O and C and investigation. Investigation revealed the area of origin to be in a utility closet, which housed a furnace, outside of apartment T1. Burn patterns indicated the fire originated somewhere in, on, or around the furnace which extended vertically and horizontally with the duct work.</p> <p>A un-activated sprinkler head was located in the closet approximately 1-2 feet below the charred ceiling level.</p> <p>Crews remained on the scene actively chasing smoke throughout the building at the conclusion of the investigation.</p> <p>Estimated 60 plus residence displaced.</p> <p>Fire is classified as ACCIDENTAL.</p>	
	
Number of Displaced Victims	
Adults:	30
Children:	30
K9 utilized:	None
FIRE INVESTIGATION INFORMATION	
Alarm Level:	Second or greater
Fire Cause:	Accidental
Fire Loss Dollar Amounts	
Structure:	
Contents:	
Other:	
Smoke Detector Information	
Present:	N/A
Activated:	N/A
Alerted Occupants:	N/A
Sprinkler Information	
Present:	Yes
Activated:	No

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Programmatic Critical Task Analysis by Risk Class for 1st Due & ERF [CC 2C.4]

As stated on page 49 of the April 2010 [*National Institute of Standards and Testing \(NIST\) Report on Residential Fireground Field Experiments*](#) report, “Stopping the escalation of the event involves firefighter intervention via critical tasks performed on the fireground.”

The term fireground shall be used synonymously with MCFRS personnel and equipment operating at the scene of any incident involving any risk category or risk class.

In addition, and as stated on page 10 of the September 2010 [*Firefighter Safety and Deployment Study Report on EMS Field Experiments*](#):

“In order to address the primary research questions using realistic scenarios, the research was divided into three distinct, yet interconnected parts. Part 1—Time-to-task experiments related to gaining access to a patient and removing the patient from the incident scene. Part 2—Time-to-task experiments to the care of a victim with multi-system trauma. Part 3—Time-to-task experiments related to the care of a victim with chest pain and witnessed cardiac arrest. These parts included the most basic elements of an overall EMS response, which are—access the patient, conduct patient assessment, deliver on scene patient care, package the patient, and remove the patient to a transport-capable vehicle.”

MCFRS has conducted an all-hazard community risk assessment and determined its emergency and non-emergency response strategies to best support its mission, vision, guiding principles/values, and goals and objectives. Based on this assessment, its agency responsibilities, and community expectations and needs, MCFRS has developed appropriate initial response deployment packages based on each of the defined risk categories and classes.

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Each of the following MCFRS first-due unit and effective response force (ERF) packages have been designed to provide an appropriate capability and capacity within the initial deployment of fire-rescue resources to provide maximum protection of lives, property, and the environment based on the initially-reported risk category and class. These packages have been engineered and reengineered over time through rigorous validation process of internal programmatic appraisal and review of data, outcome performance monitoring, national standards, best practices and studies, and after-action reporting/post-incident analysis recommendations.

Subsequently, through the aforementioned review and validation processes, a critical task analysis has been completed for each of the MCFRS risk categories/emergency response programs and their corresponding risk classes. These have been designed to provide a high-level expectation of the critical tasks needed to be performed by the personnel assigned to specific apparatus and unit types to safely and effectively mitigate emergency events.

Finally, as one reviews the following list of MCFRS first-due and ERF response packages and each of the critical task analysis documents for each risk category /emergency response program, it is important to maintain an understanding of a component of the MCFRS [Incident Response Policy's Operational Doctrine Statement](#). Specifically, under Operational Principles on page 3 regarding Scaled Response as quoted:

“MCFRS incident response operations begin with the report of an incident. For this initial report one of a number of predetermined assortments of personnel and capabilities is dispatched.”

“Beginning at the time of dispatch the organization then relies on personnel to conduct assessments and make judgements. One of the core judgements is whether or not the response package is appropriate. Based on situation

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

assessments, the appropriate personnel determine whether to deescalate the incident, maintain the incident, or escalate the incident.”

“The principle of scaled response contains within it the corollary of *defense in depth*. Defense in depth means that as the risk or complexity of an incident increases, the allocation of resources, the number of contingency plans, and the configuration of rapid intervention teams must also grow proportionately, scaling up or down to meet the needs of the incident.”

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

The following table represents the MCFRS initial deployment packages/risk categories and risk levels. The ERF for each package is included on each of the critical task analysis sheets as well as hyperlinked within the table below. Certain low-risk programs do not include an ERF.

Risk Category/Emergency Response Program	Risk Level	Program Acronym	MCFRS Grp.1	MCFRS Grp.2	1st Arriving Unit Qualifier
Fire Full Assignment - Hydranted Areas	High	FFA-HY	Fire	FFA	Engine
Fire Full Assignment - Non-Hydranted Areas	Special	FFA-NH	Fire	FFA	Engine
Fire Full Assignment - High-Rise	Special	FFA-SRHR	Fire	FFA	Engine
Adaptive 2-3	Moderate	A2-3	Fire	Adaptive	Any unit due
Adaptive 1F	Low	A1F	Fire	Adaptive	Engine
Adaptive 1N	Low	A1N	Fire	Adaptive	Any unit due
Advanced Life Support - 2	High	ALS2	EMS	ALS	Paramedic
Advanced Life Support - 1	Moderate	ALS1	EMS	ALS	Paramedic
Basic Life Support	Low	BLS	EMS	BLS	Any unit
Hazmat Moderate Risk	Moderate	HM-MR	Special Operations	HazMat	Any unit due
Hazmat High Risk	High	HM-HR	Special Operations	HazMat	Any unit due
Hazmat Special Risk	Special	HM-SR	Special Operations	HazMat	Any unit due
Technical Rescue	Special	TR-SR	Special Operations	TechRes	Any unit due
Water/Ice Rescue Moderate Risk	Moderate	WIR-MR	Special Operations	Water-Ice	Any unit due
Water/Ice Rescue High Risk	High	WIR-HR	Special Operations	Water-Ice	Any unit due
Water/Ice Rescue Special Risk	Special	WIR-SR	Special Operations	Water-Ice	Any unit due
Aircraft Rescue FF High Risk	High	ARF-HR	Special Operations	ARFF	Any unit due
Aircraft Rescue FF Special Risk	Special	ARF-SR	Special Operations	ARFF	Any unit due
Bomb Squad Moderate Risk	Moderate	BS-MR	Special Operations	Bomb Squad	FM/BU700
Bomb Squad High Risk	High	BS-HR	Special Operations	Bomb Squad	Any unit due
Bomb Squad Special Risk	Special	BS-SR	Special Operations	Bomb Squad	Any unit due

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

MCFRS Risk Categories Table

<p>Special Risk (SR)</p> <ul style="list-style-type: none"> • Report of a large airplane (5 or > soles) on fire or crashed anywhere (ARFF) • Bomb Squad special risk responses including confirmed explosive device incidents • Smoke in a house, building, school, apartment, garage, barn, etc. in a non-hydranted box area • Reported fire in a house, building, school, apartment, garage, barn, etc. in a non-hydranted box area • Reported smoke or fire in a high-rise building, apartment, office, etc. • Hazmat box alarms for a report of a building fire involving hazmat or a 2-inch or > high pressure natural gas line break; outside or inside • All technical rescue responses • Swiftwater Potomac River emergencies 	<p>High Risk (HR)</p> <ul style="list-style-type: none"> • Smoke in a house, building, school, non-high-rise apartment, garage, barn, etc. • Reported fire in a house, building, school, non-high-rise apartment, garage, barn, etc. • Report of a small airplane (4 or < soles) on fire or crashed anywhere (ARFF) • ALS2 EMS incidents including ALS2 MV Crash with or without reported entrapment • Bomb Squad high risk responses including creditable suspicious and unattended packages/devices • Reported train/metrarail crash/derailment/fire • Hazmat inhalation emergencies including CO alarms with symptomatic patients • Stillwater Potomac River emergencies or incidents involving White's Ferry
<p>Moderate Risk (MR)</p> <ul style="list-style-type: none"> • Inside contained appliance fire (dryer, oven, etc.) • Report of light smoke in a building • Inside odor of smoke • Inside natural gas leak • Inside electrical short circuit • Detached shed fire • Large vehicle fire • Malfunctioning furnace • ALS1 EMS incidents including ALS1 MV Crash with or without reported entrapment • Bomb Squad moderate risk responses including suspicious and unattended packages • Hazmat releases not involving fire; including white powder responses • Inland water/ice emergency; not including swimming pool, bathtub, etc. 	<p>Low Risk (LR)</p> <ul style="list-style-type: none"> • Automobile fires • Brush, grass, leaf, field fire • Outside trash, dumpster fires • Outside transformer fire • Home automatic or commercial fire alarms, local alarm bells • Outside natural gas leaks & small fuel spills • Outside electrical short circuit • Citizen lock-out with hazard (food on stove, baby locked inside, etc.) • Outside smoke or odor investigation • Stalled elevator with people on board • BLS EMS responses including BLS motor vehicle crash • Metrorail arcing insulator issue • Public service call (performance not measured) Examples: <ul style="list-style-type: none"> ○ Assist citizen off the floor ○ Water leaking from an above apartment ○ Citizen lock-in ○ Tree down blocking the roadway ○ CO alarm with asymptomatic patients

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

MCFRS Critical Task Analysis Worksheets

Risk Class: High	Program: Fire Full Assignment Structure Fire - Hydranted Areas (page 1 of 2)	Risk Category: FFA-HY
Critical Tasks		Minimum Personnel
1st and 2nd Due Chiefs: Incident Command		2
1st Due Engine: *Establish uninterrupted water supply of a minimum of 500 GPM for 30 minutes with supply line(s) maintained by an operator and position on the Alpha-side of the structure, *Conduct a 360 degree size-up & announce report, *Provide Situation Update Reports, *Advance attack line which has a minimum flow rate of 150 GPM and operated by a minimum of two members, *Locate, confine, extinguish fire, *Announce when line is operating on fire or if fire's location cannot be quickly determined, *Announce unexpected hazards		3 (4)
2nd Due Engine: *Complete water supply (split lay/pick up hydrant, etc.) for the 1st due engine and/or augment/correct 1st due Engine water supply issues, *Support initial attack line and provide a backup line, maintained by an operator, with a minimum flow rate of 150 GPM and operated by a minimum of two members		3 (4)
3rd Due Engine: *Establish uninterrupted water supply of a minimum of 500 GPM for 30 minutes with supply line(s) maintained by an operator and position on the opposite (most likely Charlie) side of the structure, *Conduct a Charlie-side size-up & announce report, *Advance attack line which has a minimum flow rate of 150 GPM and operated by a minimum of two members, *Check the lowest level of the structure and report conditions found, *Be prepared, with IC authorization, to attack any fire in the lowest level, *Provide Situation Update Reports, *Be prepared to stretch hose line to floor above or most threatened exposure		3 (4)
4th Due Engine: *Complete water supply (split lay/pick up hydrant, etc.) for the 3rd due engine and/or augment/correct 3rd due Engine water supply issues, *Provide support for 3rd due engine attack line, if needed, *Be prepared to provide an attack line with a minimum flow rate of 150 GPM and operated by a minimum of two members if directed by the IC		3 (4)
5th Due Engine: *Ensure all existing water supply operations are functional and with IC permission, correct any water supply issues, *Assume duties of the Rapid Intervention Company (RIC) & announce when in place and the location, *Be capable of deploying an attack line which has a minimum flow rate of 150 GPM and operated by a minimum of two members, *Assure hose line(s) are maintained by an operator		3 (4)

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Program: Fire Full Assignment Structure Fire - Hydranted Areas (page 2 of 2)		
1st Due Truck: Position on the Alpha-side or as necessary to make immediate rescues, *Coordinate ventilation with initial interior attack line, *Initiate obvious rescues for people in immediate danger and visible from the exterior of a structure, *Assist with forcible entry, *Ensure ladders are placed for egress and/or rescues, *Remove security bars and other impediments, *Conduct interior searches, *Check and report on fire extension, *Conduct salvage and overhaul		3
2nd Due Truck: Position on the opposite (most likely Charlie) side of the structure from the 1st due truck, *Coordinate ventilation with initial interior attack line, *Initiate obvious rescues for people in immediate danger and visible from the exterior of a structure, *Assist with forcible entry for the 3rd due engine as needed, *Ensure ladders are placed for egress and/or rescues, *Remove security bars and other impediments, *Conduct interior searches, *Check and report on fire extension, *Conduct salvage and overhaul		3
Rescue Squad: Position apparatus without hindering placement of other apparatus, *Ensure systematic completion of searches in unsearched areas, *Once primary searches complete, report to IC for reassignment, Control utilities		3
EMS Transport Unit: Park to allow for rapid egress and do not impede access to the scene, *Immediately locate, assess, and care for occupants, *If used as the standby team, transition to established duties immediately upon the establishment of the RIC, * Establish aid station near primary entry point and announce location		2
Minimum Total	Number in parenthesis is based on engines staffed with 4	28 (33)
First arriving unit qualifier: Primary Unit Type: Engine		
ERF unit qualifier (last unit to arrive of the following package):		
<ul style="list-style-type: none"> • 5 Primary Unit Type Engine • 2 Primary Unit Type Aerial • 1 Primary Unit Type Rescue Squad • 2 Primary Unit Type Chief • 1 Primary Unit Type Ambulance or 1 Secondary Unit Type Medic 		
Program: Fire Full Assignment: Hydranted areas		
MCFRS response program call type groupings:		NFPA 1710 (2016) linkage: 5.2.4: Service Delivery Capability / 5.2.4.1.1: Two-story single-family dwelling / 5.2.4.2.1: Typical open-air strip shopping center / 5.2.4.3.1: Typical apartment within a three-story garden apartment building
Group 1	Fire	
Group 2	Fire Full Assignment	
Group 3	FFA-HY	
Group 4	Structure Fire, Structure Fire Hazmat	

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Class: Special	Program: Fire Full Assignment Structure Fire - Non-Hydranted Areas (page 1 of 3)	Risk Category: FFA-NH
Critical Tasks		Minimum Personnel
1st and 2nd Due Chiefs: Incident Command		2
1st Due Engine: *Establish the process to achieve an uninterrupted water supply of a minimum of 400 GPM for 30 minutes by initiating attack tanker ops, announcing fill site location, and laying a supply line with clappered siamese, maintained by an operator, and position on the Alpha-side of the structure, *Conduct a 360 degree size-up & announce report, *Provide Situation Update Reports, *Coordinate/co-locate with 2nd due engine and first due (attack) tanker, *Advance attack line which has a minimum flow rate of 150 GPM and operated by a minimum of two members, *Locate, confine, extinguish fire, *Announce when line is operating on fire or if fire's location cannot be quickly determined, *Announce unexpected hazards		3 (4)
2nd Due Engine: *Be prepared to lay into scene if 1st due engine does not, *Co-locate with with 1st due engine and 1st due (attack) tanker, *Pump tank water (maintained by an operator) to the attack tanker, *Support initial attack line and provide a backup line, maintained by an operator, with a minimum flow rate of 150 GPM and operated by a minimum of two members		3 (4)
3rd Due Engine: *Position engine and while maintaining an operator, pump tank water to the 1st due engine's clappered siamese, *Conduct a Charlie-side size-up & announce report, *Advance attack line which has a minimum flow rate of 150 GPM and operated by a minimum of two members, *Check the lowest level of the structure and report conditions found, *Be prepared, with IC authorization, to attack any fire in the lowest level, *Provide Situation Update Reports, *Be prepared to stretch hose line to floor above or most threatened exposure		3 (4)
4th Due Engine: *Position engine and while maintaining an operator, pump tank water to the 1st due engine's clappered siamese, *Provide support for 3rd due engine attack line, if needed, *Be prepared to provide an attack line with a minimum flow rate of 150 GPM and operated by a minimum of two members if directed by the IC		3 (4)

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Program: Fire Full Assignment Structure Fire - Non-Hydranted Areas (page 2 of 3)	
5th Due Engine: *Position engine and while maintaining an operator, pump tank water to the 1st due engine's clappered siamese, *Assume duties of the Rapid Intervention Company (RIC) & announce when in place and the location, *Be capable of deploying an attack line which has a minimum flow rate of 150 GPM and operated by a minimum of two members, *Assure hose line(s) are maintained by an operator	3 (4)
6th Due Engine: Fill tankers and engines at designated fill site by utilizing an operator, *Be prepared to work within the ICS to assume water supply officer (WSO) position or assist the WSO with strategies such as dump site/relay pumping operations	3 (4)
1st Due Truck: Position on the Alpha-side or as necessary to make immediate rescues, *Coordinate ventilation with initial interior attack line, *Initiate obvious rescues for people in immediate danger and visible from the exterior of a structure, *Assist with forcible entry, *Ensure ladders are placed for egress and/or rescues, *Remove security bars and other impediments, *Conduct interior searches, *Check and report on fire extension, *Conduct salvage and overhaul	3
2nd Due Truck: Position on the opposite (most likely Charlie) side of the structure from the 1st due truck, *Coordinate ventilation with initial interior attack line, *Initiate obvious rescues for people in immediate danger and visible from the exterior of a structure, *Assist with forcible entry for the 3rd due engine as needed, *Ensure ladders are placed for egress and/or rescues, *Remove security bars and other impediments, *Conduct interior searches, *Check and report on fire extension, *Conduct salvage and overhaul	3
Rescue Squad: Position apparatus without hindering placement of other apparatus, *Ensure systematic completion of searches in unsearched areas, *Once primary searches complete, report to IC for reassignment, Control utilities	3
EMS Transport Unit: Park to allow for rapid egress and do not impede access to the scene, *Immediately locate, assess, and care for occupants, *If used as the standby team, transition to established duties immediately upon the establishment of the RIC, * Establish aid station near primary entry point and announce location	2
1st Tanker: Co-locate with 1st and 2nd due engine, *Supply 1st due engine, *Receive water from the 2nd due engine, *Maintain functions with an operator	1
2nd Tanker: Supply incident via clappered siamese with an operator	1
3rd Tanker: Supply incident via clappered siamese with an operator	1

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Program: Fire Full Assignment Structure Fire - Non-Hydranted Areas (page 3 of 3)		
Minimum Total	Number in parenthesis is based on engines staffed with 4	34 (40)
First arriving unit qualifier: Primary Unit Type: Engine		
ERF unit qualifier (last unit to arrive of the following package): <ul style="list-style-type: none"> • 6 Primary Unit Type Engine • 2 Primary Unit Type Aerial • 1 Primary Unit Type Rescue Squad • 2 Primary Unit Type Chief • 3 Primary Unit Type Tanker and/or combo or Engine Tankers • 1 Primary Unit Type Ambulance or 1 Secondary Unit Type Medic 		
Program: Fire Full Assignment: Non-Hydranted areas		
MCFRS response program call type groupings:		NFPA 1710 (2016) linkage: 5.2.4: Service Delivery Capability / 5.2.4.1.1: Two-story single-family dwelling / 5.2.4.2.1: Typical open-air strip shopping center / 5.2.4.3.1: Typical apartment within a three-story garden apartment building
Group 1	Fire	
Group 2	Fire Full Assignment	
Group 3	FFA-NH	
Group 4	Structure Fire, Structure Fire Hazmat	

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Program: Fire Full Assignment Structure Fire – Special Risk High-Rise Page 1 of 3

Risk Class: Special	Program: Fire Full Assignment Structure Fire – Special Risk High-Rise	Risk Category: FFA- SRHR
Critical Tasks		Minimum Personnel
1st and 2nd Due Chiefs: Incident Command / Lobby Control / 3rd & 4th Chiefs if on the box: Division/Group/Branch Supervision		2 (4)
1st Due Engine: *Establish uninterrupted water supply of a minimum of 500 GPM for 30 minutes with supply line(s) maintained by an operator and position on the Alpha-side of the structure, *Conduct a 360 degree size-up if possible & announce report, *Charge standpipes and sprinkler systems per IRP, *Provide Situation Update Reports, *Advance charged attack line which has a minimum flow rate of 150 GPM and operated by a minimum of two members from the stairwell if any smoke or fire is present from the floor, *Locate, confine, extinguish fire, *Announce when line is operating on fire or if fire's location cannot be quickly determined, *Announce unexpected hazards, *Bring at least 200 feet of hose to fire floor		3 (4)
2nd Due Engine: *Complete water supply (split lay/pick up hydrant, etc.) for the 1st due engine and/or augment/correct 1st due Engine water supply issues, *Support initial attack line by assisting 1st due engine advance their line, and provide a backup line, maintained by an operator, with a minimum flow rate of 150 GPM and operated by a minimum of two members		3 (4)
3rd Due Engine: *Establish uninterrupted water supply of a minimum of 500 GPM for 30 minutes with supply line(s) maintained by an operator and position on the opposite (most likely Charlie) side of the structure, *Conduct a Charlie-side size-up & announce report, *Advance attack line which has a minimum flow rate of 150 GPM and operated by a minimum of two members, *Check the lowest level of the structure and report conditions found, *Be prepared, with IC authorization, to attack any fire in the lowest level, *Provide Situation Update Reports, *Be prepared to stretch hose line to floor above after providing report to immediate supervisor		3 (4)
4th Due Engine: *Complete water supply (split lay/pick up hydrant, etc.) for the 3rd due engine and/or augment/correct 3rd due Engine water supply issues, *Provide support for 3rd due engine attack line, if needed, *Be prepared to provide an attack line with a minimum flow rate of 150 GPM and operated by a minimum of two members if directed by the IC		3 (4)

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Program: Fire Full Assignment Structure Fire – Special Risk High-Rise Page 2 of 3

5th Due Engine: *Ensure all existing water supply operations are functional and with IC permission, correct any water supply issues, *Assume duties of the Rapid Intervention Company (RIC) & announce when in place and the location, *Be capable of deploying an attack line which has a minimum flow rate of 150 GPM and operated by a minimum of two members, *Assure hose line(s) are maintained by an operator		3 (4)
1st Due Truck: Position on the Alpha-side or as necessary to make immediate rescues, *Coordinate ventilation with initial interior attack line, *Initiate obvious rescues for people in immediate danger and visible from the exterior of a structure, *Assist with forcible entry, *Ensure ladders are placed for egress and/or rescues, *Remove security bars and other impediments, *Conduct interior searches, *Check and report on fire extension, *Conduct salvage and overhaul		3
2nd Due Truck: Position on the opposite (most likely Charlie) side of the structure from the 1st due truck, *Coordinate ventilation with initial interior attack line, *Initiate obvious rescues for people in immediate danger and visible from the exterior of a structure, *Assist with forcible entry for the 3rd due engine as needed, *Ensure ladders are placed for egress and/or rescues, *Remove security bars and other impediments, *Conduct interior searches, *Check and report on fire extension, *Conduct salvage and overhaul		3
3rd Due Truck: Ensure all stairwells and pressurized, *Designate a ventilation stairwell, *Manage all additional smoke control & ventilation		3
Rescue Squad: Position apparatus without hindering placement of other apparatus, *Ensure systematic completion of searches in unsearched areas, *Once primary searches complete, report to IC for reassignment, Control utilities		3
EMS Transport Unit: Park to allow for rapid egress and do not impede access to the scene, *Immediately locate, assess, and care for occupants, *If used as the standby team, transition to established duties immediately upon the establishment of the RIC, * Establish aid station near primary entry point and announce location		2
Minimum Total	31-engines w/3; 36-engines w/4; 38-two add'l volunteer chiefs	31 / 36/ 38
First arriving unit qualifier: Primary Unit Type: Engine		
ERF unit qualifier (last unit to arrive of the following package):		
<ul style="list-style-type: none"> • 5 Primary Unit Type Engine • 3 Primary Unit Type Aerial • 1 Primary Unit Type Rescue Squad • 2 Primary Unit Type Chief • 1 Primary Unit Type Ambulance or 1 Secondary Unit Type Medic 		

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Program: Fire Full Assignment Structure Fire – Special Risk High-Rise Page 3 of 3

Program: Fire Full Assignment: High-Rise		
MCFRS response program call type groupings:		NFPA 1710 (2016) linkage: 5.2.4: Service Delivery Capability / 5.2.4.4: High-Rise Initial Full Alarm Assignment Capability / 5.2.4.4.1: Initial full alarm assignment to a fire in a building with the highest floor greater than 75' above lowest level FD vehicle access
Group 1	Fire	
Group 2	Fire Full Assignment	
Group 3	FFA-SRHR	
Group 4	Structure Fire, Structure Fire Hazmat	

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Class: Moderate		Program: Adaptive 2-3 (two engines and a special service for a total of three units)		Risk Category: A2-3
Critical Tasks				Minimum Personnel
1st Due Engine: *Establish Command (if first arriving), *Establish uninterrupted water supply of a minimum of 500 GPM for 30 minutes with supply line(s) maintained by an operator and position on the Alpha-side of the structure, *Conduct a 360 degree size-up & announce report, *Call for additional resources if needed, *Provide Situation Update Reports, *Advance attack line which has a minimum flow rate of 150 GPM and operated by a minimum of two members, *Locate, confine, extinguish fire, *Announce when line is operating on fire or if fire's location cannot be quickly determined, *Announce unexpected hazards				3 (4)
2nd Due Engine: *Complete water supply (split lay/pick up hydrant, etc.) for the 1st due engine and/or augment/correct 1st due Engine water supply issues, *Support initial attack line and provide a backup line, maintained by an operator, with a minimum flow rate of 150 GPM and operated by a minimum of two members				3 (4)
1st Due Truck or Rescue Squad (a.k.a. Special Service): *Establish Command (if first arriving), *Call for additional resources if needed, *Position on the Alpha-side or as necessary to make immediate rescues, *Coordinate ventilation with initial interior attack line, *Initiate obvious rescues for people in immediate danger and visible from the exterior of a structure, *Assist with forcible entry, *Ensure ladders are placed for egress and/or rescues, *Remove security bars and other impediments, *Conduct interior searches, *Check and report on fire extension, *Conduct salvage and overhaul				3
Minimum Total		Number in parenthesis is based on engines staffed with 4		9 (11)
First arriving unit qualifier: Primary Unit Type: Engine or Special Service				
ERF unit qualifier (last unit to arrive of the following package):				
• 2 Primary Unit Type Engine • 1 Primary Unit Type Aerial or • 1 Primary Unit Type Rescue Squad				
Program: Adaptive 2-3				
Group1	Fire			
Group2	Adaptive			
Group3	Adaptive2-3			
Group4	Structure Fire, Structure Fire Hazmat; A2-3, A2-3 Gas-Fuel			

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Class: Low	Program: Adaptive 1F (one engine for low-risk fire incidents)		Risk Category: A1F
Critical Tasks			Minimum Personnel
1st Due Engine: *Establish Command, *Conduct an effective situation size-up, *Call for additional resources if needed, *If needed establish uninterrupted water supply of a minimum of 500 GPM for 30 minutes with supply line(s) maintained by an operator, *Provide Situation Update Reports, *Advance attack line which has a minimum flow rate of 150 GPM and operated by a minimum of two members, *Locate, confine, extinguish fire, *Announce unexpected hazards			3 (4)
Minimum Total	Number in parenthesis is based on engines staffed with 4		3 (4)
First arriving unit qualifier: Primary Unit Type: Engine			
ERF unit qualifier (last unit to arrive of the following package):			
<ul style="list-style-type: none"> • NONE 			
Program: Adaptive 1F			
MCFRS response program call type groupings:			
Group 1	Fire		
Group 2	Adaptive		
Group 3	Adaptive_1F		
Group 4	A1F		

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Class: Low	Program: Adaptive 1N (one unit for low-risk incidents)	Risk Category: A1N
Critical Tasks		Minimum Personnel
1st Due Unit: *Establish Command, *Conduct an effective situation size-up, *Call for additional resources if needed, *If needed establish uninterrupted water supply of a minimum of 500 GPM for 30 minutes with supply line(s) maintained by an operator, *Provide Situation Update Reports, *Advance attack line which has a minimum flow rate of 150 GPM and operated by a minimum of two members, *Locate, confine, extinguish fire, *Announce unexpected hazards		3 (4)
Minimum Total	Number in parenthesis is based on engines staffed with 4	3 (4)
First arriving unit qualifier: Primary Unit Type: Engine, Brush, Tanker, Aerial, Rescue Squad, Hazmat, Utility		
ERF unit qualifier (last unit to arrive of the following package):		
<ul style="list-style-type: none"> • NONE 		
Program: Adaptive 1N		
MCFRS response program call type groupings:		Standard(s) linkage:
Group 1	Fire	
Group 2	Adaptive	
Group 3	Adaptive_1N	
Group 4	A1N, A1N Gas-Fuel	

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Class: High	Program: EMS	Risk Category: ALS2
Critical Tasks		Minimum Personnel
Size-up; IC; Scene safety; Additional resources if needed, family liaison, manage span-of-control		1
Assist with equipment transport (O2, medical bag, AED, etc.), Patient care, ALS support, patient transport		1
Assist with equipment transport (O2, medical bag, AED, etc.), Patient care, ALS support, patient transport		1
ALS Provider #1: Same as above and ALS interventions: EKG monitoring/reading, drug therapy/administration, medical control, intubation, etc.		1
ALS Provider #2: Assist ALS Provider #1 with ALS interventions: EKG monitoring/reading, drug therapy/administration, medical control, intubation, etc.		1
Minimum Total		5
First arriving unit qualifier: AFRA, Medic Unit, Paramedic Chase Unit/Car, EMS Supervisor		
ERF unit qualifier (last unit to arrive of any of the following packages): • 1 Secondary Unit Type Medic and 1 AFRA OR • 2 AFRA's and 1 Primary Unit Type Ambulance OR • 2 Secondary Unit Type Medic and 1 Primary Unit Type Ambulance OR • 2 Secondary Unit Type Medic and 1 Manpower Unit OR • 1 Secondary Unit Type Medic and 1 EMS Supervisor and 1 Manpower Unit OR • 1 Secondary Unit Type Medic and 1 EMS Supervisor and 1 Primary Unit Type Ambulance OR • 1 AFRA and 1 EMS Supervisor and 1 Primary Unit Type Ambulance OR • 1 AFRA and 1 Paramedic Chase Unit and 1 Primary Unit Type Ambulance OR • 1 Paramedic Chase Unit and 1 EMS Supervisor and 1 Primary Unit Type Ambulance and 1 Manpower Unit OR • 1 Paramedic Chase Unit and 1 Secondary Unit Type Medic and 1 Manpower Unit		
Manpower Unit = Primary Unit Type Engine or Aerial or Rescue Squad		
AFRA = Secondary Unit Type Paramedic Engine OR Paramedic Brush Engine OR Paramedic Engine Tanker OR Paramedic Truck OR Paramedic Aerial Tower OR Paramedic Quint OR Paramedic Rescue Squad		
Program: Advanced Life Support 2 MCFRS response program call type groupings: Group 1 EMS Group 2 ALS Group 3 ALS2 Group 4 ALS2	NFPA 1710 (2016) linkage: 5.3.3.3: Service Delivery Deployment / 5.3.3.3.2: Personnel deployed to ALS emergency responses shall include a minimum of two members trained at the emergency medical technician-paramedic level and two members trained at the [EMT-B] level arriving on scene within the established travel time.	

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Class: Moderate	Program: EMS	Risk Category: ALS1
Critical Tasks		Minimum Personnel
Size-up; IC; Scene safety; Additional resources if needed, Assist with equipment transport (O2, medical bag, AED, etc.), Patient care (assessment, treatment, comfort), family liaison		1
Assist with equipment transport (O2, medical bag, AED, etc.), Patient care (assessment, treatment, comfort), Patient care reporting, Assist paramedic		1
Same as above and ALS interventions: EKG monitoring/reading, drug therapy, medical control, patient transport, etc.		1
Minimum Total		3
First arriving unit qualifier: AFRA, Medic Unit, Paramedic Chase Unit/Car, EMS Supervisor		
ERF unit qualifier (last unit to arrive of any of the following packages):		
<ul style="list-style-type: none"> • 1 Secondary Unit Type Medic and 1 Manpower Unit OR • 1 AFRA and 1 Primary Unit Type Ambulance OR • 1 AFRA and 1 Secondary Unit Type Medic OR • 1 Primary Unit Type EMS Supervisor and 1 Secondary Unit Type Ambulance OR • 1 Primary Unit Type Ambulance or 1 Secondary Unit Type Medic • 1 Secondary Unit Type Paramedic Chase Unit and 1 Primary Unit Type Ambulance OR • 1 Secondary Unit Type Paramedic Chase Unit and 1 Primary Unit Type Medic 		
AFRA = Secondary Unit Type Paramedic Engine OR Paramedic Brush Engine OR Paramedic Engine Tanker OR Paramedic Truck OR Paramedic Aerial Tower OR Paramedic Quint OR Paramedic Rescue Squad		
Program: Advanced Life Support 1 MCFRS response program call type groupings: Group 1 EMS Group 2 ALS Group 3 ALS1 Group 4 ALS1		Protocol/Standards linkage: Protocol/Standards linkage: NFPA 1710 (2016) linkage: 5.3.3.3: Service Delivery Deployment / 5.3.3.3.2: Personnel deployed to ALS emergency responses shall include a minimum of two members trained at the emergency medical technician-paramedic level and two members trained at the [EMT-B] level arriving on scene within the established travel time. MCFRS uses EMD to subdivide ALS dispatches; generally EMD C & D call types are classified as ALS1 and require less resources than an ALS2 event.

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Class: Low	Program: EMS	Risk Category: BLS
Critical Tasks		Minimum Personnel
Size-up; IC; Scene safety; Additional resources if needed, Assist with equipment transport (O2, medical bag, AED, cot, stair chair, etc.), Patient care (assessment, treatment, comfort), family liaison, patient transport		1
Assist with equipment transport (O2, medical bag, AED, cot, stair chair, etc.), Patient care (assessment, treatment, comfort), Patient transport, Medical control notification(s), Patient care reporting		1
Minimum Total		2
First arriving unit qualifier: Any Unit		
ERF unit qualifier: Ambulance or Medic Unit		
Program: Basic Life Support MCFRS response program call type groupings: Group 1 EMS Group 2 BLS Group 3 BLS Group 4 BLS		Protocol/Standards linkage: Protocol/Standards linkage: Maryland COMAR Title 30 requires ambulance staffing by at least one MD certified EMT; MCFRS Policy 25-08AMII requires minimum staffing of BLS ambulances to be two MD certified EMTs.

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Class: Moderate	Program: Hazardous Materials	Risk Category: HM-MR
Critical Tasks		Minimum Personnel
Chief Officer: * Incident Command (Life Safety, Incident Stabilization, Property Conservation.)		1
Engine: * Provide Initial On Scene Report (IOSR), , * If applicable establish uninterrupted water supply of a minimum of 500 GPM for 30 minutes with supply line(s) maintained by an operator, * Stage 500' away ensuring the last water supply is not passed, * Secure perimeter and deny entry, * Locate supervisor, calling party, or competent person, * Prepare to establish emergency gross decon, *Provide Situation Update Reports		3 (4)
Truck or Rescue Squad: * Stage 500' away, * Secure perimeter and deny entry, * Prepare to establish emergency gross decon, *Provide Situation Update Reports		3
Ambulance: * Establish an aid station and rehab in the cold zone as identified by command, * Prepare to provide first aid to decontaminated victims, * Prepare to provide rehab services to decontaminated hazmat personnel		2
Medic Unit: *Report to aid station in the cold zone as identified by command, * Prepare to provide advanced life support to decontaminated victims, * Prepare to provide rehab services to decontaminated hazmat personnel		2
Haz-Mat Unit: * Interview witness, calling party, or competent person to identify nature of event, * Ensure proper level of PPE, isolation distance, and decon procedures are identified and communicated to everyone on the event, *Ensure emergency gross decon is established prior to going downrange, * Ensure full decon is established, * monitor, test, and identify hazardous products, * Mitigate hazardous event, * Provide Situation Update Reports		3 (4)
Minimum Total	Number in parenthesis is based on engine staffed with 4	14 (16)
First arriving unit qualifier: Any of the following		
ERF unit qualifier (last unit to arrive of the following package):		
<ul style="list-style-type: none"> • 1 Primary Unit Type Engine AND • 1 Primary Unit Type Aerial OR • 1 Primary Unit Type Rescue Squad AND • 1 Primary Unit Type Ambulance AND • 1 Secondary Unit Type Medic Unit AND • 1 Primary Unit Type Chief AND • 1 Primary Unit Type Hazmat 		
Program: Hazardous Materials Moderate Risk (CAD Plan HMI & HM1P)		
MCFRS response program call type groupings:		
Group 1 Special Ops Group 2 Hazmat Group 3 HM-MR Group 4 HM-MR		

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Class: High	Program: Hazardous Materials (page 1 of 2)	Risk Category: HM-HR
Critical Tasks		Minimum Personnel
Chief Officer: * Incident Command (Life Safety, Incident Stabilization, Property Conservation.)		1
1st Due Engine: * Provide Initial On Scene Report (IOSR), , * If applicable establish uninterrupted water supply of a minimum of 500 GPM for 30 minutes with supply line(s) maintained by an operator, * Stage 500' away ensuring the last water supply is not passed, * Secure perimeter and deny entry, * Locate supervisor, calling party, or competent person, * Prepare to establish emergency gross decon, *Provide Situation Update Reports,		3 (4)
2nd Due Engine: * If applicable ensure and expand water supply for first due engine, * Stage 500' away, * Secure perimeter and deny entry, * Prepare to assist with emergency gross decon, *Provide Situation Update Reports,		3 (4)
3rd Due Engine * If applicable establish uninterrupted secondary water supply of a minimum of 500 GPM for 30 minutes with supply line(s) maintained by an operator, * Stage 500' away, * Secure perimeter and deny entry, * Prepare to assist with emergency gross decon, *Provide Situation Update Reports,		3 (4)
Truck: * Stage 500' away, * Secure perimeter and deny entry, * Prepare to establish emergency gross decon, *Provide Situation Update Reports		3
Rescue Squad: * Stage 500' away, * Secure perimeter and deny entry, * Prepare to assist with emergency gross decon, * Prepare to assist in evacuation, rearch, rescue, and triage of decontaminated victims, *Provide Situation Update Reports		3
1st Ambulance or Medic Unit * Establish an aid station and rehab in the cold zone as identified by command, * Prepare to provide first aid to decontaminated victims, * Prepare to provide rehab services to decontaminated hazmat personnel		2
2nd Ambulance or Medic Unit *Report to aid station in the cold zone as identified by command, * Prepare to provide advanced life support to decontaminated victims, * Prepare to provide rehab services to decontaminated hazmat personnel		2
Haz-Mat Unit: * Interview witness, calling party, or competant person to identify nature of event, * Ensure proper level of PPE, isolation distance, and deon procedures are identified and communicated to everyone on the event, *Ensure emergency gross decon is established prior to going downrange, * Ensure full decon is established, * monitor, test, and identify hazardous products, * Mitigate hazardous event, * Provide Situation Update Reports		13
Minimum Total	Number in parenthesis is based on engines staffed with 4	23 (27)

MCFRS

COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Page 2 of 2

First arriving unit qualifier: Any of the following	
ERF unit qualifier (last unit to arrive of the following package): <ul style="list-style-type: none">• 3 Primary Unit Type Engine AND• 1 Primary Unit Type Aerial AND• 1 Primary Unit Type Rescue Squad AND• 2 Primary Unit Type Ambulance OR• 2 Secondary Unit Type Medic Unit AND• 1 Primary Unit Type Chief AND• 1 Primary Unit Type Hazmat	
Program: Hazardous Materials High Risk (CAD Plan HM2)	
MCFRS response program call type groupings: Group 1 Special Ops Group 2 Hazmat Group 3 HM-HR Group 4 HM-HR	

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Class: Special	Program: Hazardous Materials (page 1 of 2)	Risk Category: HM-SR
Critical Tasks		Minimum Personnel
1st and 2nd Due Chiefs: * Incident Command (Life Safety, Incident Stabilization, Property Conservation)		2
1st Due Engine: * Provide Initial On Scene Report (IOSR), , * If applicable establish uninterrupted water supply of a minimum of 500 GPM for 30 minutes with supply line(s) maintained by an operator, * Stage 500' away ensuring the last water supply is not passed, * Secure perimeter and deny entry, * Locate supervisor, calling party, or competent person, * Prepare to establish emergency gross decon, *Provide Situation Update Reports		3 (4)
2nd Due Engine: * If applicable ensure and expand water supply for first due engine, * Stage 500' away, * Secure perimeter and deny entry, * Prepare to assist with emergency gross decon, *Provide Situation Update Reports		3 (4)
3rd Due Engine: * If applicable establish uninterrupted secondary water supply of a minimum of 500 GPM for 30 minutes with supply line(s) maintained by an operator, * Stage 500' away, * Secure perimeter and deny entry, * Prepare to assist with emergency gross decon, *Provide Situation Update Reports		3 (4)
4th Due Engine: * If applicable ensure and expand water supply for third due engine, * Stage 500' away, * Secure perimeter and deny entry, * Prepare to assist with emergency gross decon, *Provide Situation Update Reports		3 (4)
5th Due Engine: * If applicable establish uninterrupted secondary water supply of a minimum of 500 GPM for 30 minutes with supply line(s) maintained by an operator, * Stage 500' away, * Secure perimeter and deny entry, * Establish RIC at the edge of the cold zone, *Provide Situation Update Reports		3 (4)
1st Due Truck: * Stage 500' away, * Secure perimeter and deny entry, * Prepare to establish emergency gross decon, *Provide Situation Update Reports		3
2nd Due Truck: * Stage 500' away, * Secure perimeter and deny entry, * Prepare to assist with emergency gross decon, *Provide Situation Update Reports		3
Rescue Squad: * Stage 500' away, * Secure perimeter and deny entry, * Prepare to assist with emergency gross decon, * Prepare to assist in evacuation, rearch, rescue, and triage of decontaminated victims, *Provide Situation Update Reports		3
Haz-Mat Unit: * Interview witness, calling party, or competent person to identify nature of event, * Ensure proper level of PPE, isolation distance, and decon procedures are identified and communicated to everyone on the event, *Ensure emergency gross decon is established prior to going downrange, * Ensure full decon is established, * monitor, test, and identify hazardous products, * Mitigate hazardous event, * Provide Situation Update Reports		3 (4)
Ambulance or Medic Unit: * Establish an aid station and rehab in the cold zone as identified by command, * Prepare to provide first aid to decontaminated victims, * Prepare to provide rehab services to decontaminated hazmat personnel		2
Minimum Total	Number in parenthesis is based on engines staffed with 4	31 (37)

MCFRS
COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Page 2 of 2	
First arriving unit qualifier: Primary Unit Type: Any of the following	
ERF unit qualifier (last unit to arrive of the following package):	
ERF unit qualifier (last unit to arrive of the following package): <ul style="list-style-type: none">• 5 Primary Unit Type Engine AND• 2 Primary Unit Type Aerial AND• 1 Primary Unit Type Rescue Squad AND• 1 Primary Unit Type Ambulance OR• 1 Secondary Unit Type Medic Unit AND• 1 Primary Unit Type Chief AND• 1 Primary Unit Type Hazmat	
Program: Hazardous Materials Special Risk (CAD Plan HM3 & HM3G)	
MCFRS response program call type groupings: Group 1 Special Ops Group 2 Hazmat Group 3 HM-SR Group 4 HM-SR	

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Class: Special	Program: Technical Rescue (Rope Rescue) (Page 1 of 2)	Risk Category: TR-SR
Critical Tasks		Minimum Personnel
Chief Officer: Incident Command (Life Safety, Incident Stabilization, Property Conservation.)		1
Engine: * Provide Initial On Scene Report (IOSR) if first arriving unit, * Secure perimeter and deny entry, * Locate supervisor, calling party, or competent person, *Provide Situation Update Reports.		3 (4)
Truck: * Provide Initial On Scene Report (IOSR) if first arriving unit, * Position to utilize aerial device if applicable, * Initiate lock out/tag out procedures if required, * Begin development of rescue plan, * Assist Technical Rescue Unit with manpower as needed, * Provide Situation Update Reports		3
Rescue Squad: * Identify number of victims and locations, * Assist in development of rescue plan, * Assist Technical Rescue Unit with manpower as needed, *Provide Situation Update Reports.		3
Ambulance: Park to allow for rapid egress and do not impede access to the scene, *Immediately locate, assess, and care for victims, * Establish aid station and announce location.		2
Medic Unit: Park to allow for rapid egress and do not impede access to the scene, * Proceed to aid station with ALS equipment to provide ALS first response capability.		2
Technical Rescue Unit: * Advise command of arrival, * Work with Incident Command to establish tactical objectives, * Conduct a risk/benefit analysis, * Ensure atmospheric monitoring and lock out/tag out is in place if required, * Confirm number of victims and locations, * Confirm utilities are controlled if required, * Ensure no one is within 10' of an exposed edge without travel restriction, * Ensure two points of contact and three sets of eyes for anyone going over the edge, * Make contact with the victim, * Provide initial patient protection as soon as possible, * Remove victim from harm, * Secure scene prior to leaving.		8
Minimum Total	Number in parenthesis is based on engines staffed with 4	22 (23)

MCFRS
COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Page 2 of 2	
First arriving unit qualifier: Any of the following	
ERF unit qualifier (last unit to arrive of the following package):	
<ul style="list-style-type: none">• 1 Primary Unit Type Engine AND• 1 Primary Unit Type Aerial AND• 1 Primary Unit Type Rescue Squad AND• 1 Primary Unit Type Ambulance AND• 1 Secondary Unit Type Medic Unit AND• 1 Primary Unit Type Chief AND• 1 Specific Unit "TR700" or "TR700B"	
Program: Technical Rescue Special Risk (Rope Rescue)	
MCFRS response program call type groupings:	
Group 1 Special Ops	
Group 2 Technical Rescue	
Group 3 TR-SR	
Group 4 TR-SR	

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Class: Special	Program: Technical Rescue (Structural Collapse Rescue) (Page 1 of 2)	Risk Category: TR-SR
Critical Tasks		Minimum Personnel
Chief Officer: Incident Command (Life Safety, Incident Stabilization, Property Conservation.)		1
Engine: * Provide Initial On Scene Report (IOSR), , * Establish uninterrupted water supply with supply line(s) maintained by an operator, * Position at least 250' away from structure, * Eliminate sources of vibration, * Provide fire suppression capabilities if required, * Secure perimeter and deny entry, * Locate supervisor, calling party, or competent person, * Provide gross decontamination resources for victims and rescuers, *Provide Situation Update Reports,		3 (4)
Truck: * Position at least 250' away, * Initiate utility control and lock out/tag out, * Begin development of rescue plan focusing on removal of surface victims, * Assist Technical Rescue Unit with manpower as needed, *Provide Situation Update Reports,		3
Rescue Squad: * Identify number of victims and locations, * Assist in development of rescue plan focusing on removal of surface victims, * Assist Technical Rescue Unit with manpower as needed, *Provide Situation Update Reports.		3
Ambulance: Park to allow for rapid egress and do not impede access to the scene, *Immediately locate, assess, and care for victims, * Establish aid station and announce location.		2
Medic Unit: Park to allow for rapid egress and do not impede access to the scene, * Proceed to aid station with ALS equipment to provide ALS first response capability.		2
Technical Rescue Unit: * Advise command of arrival, * Work with Incident Command to establish tactical objectives, * Conduct a risk/benefit annalysis, * Ensure atmospheric monitoring and lock out/tag out is in place, * Confirm number of victims and locations, * Confirm utilities are controled if required, * Initiate hasty search to include canine and technical search capabilities to locate entombed victims, * Shore/stabilize any portion of the structure required to provide a safe working environment for rescue operations, * Breach/break/cut/burn as required to extricate victims in a safe manor, * Make contact with the victim, * Provide initial patient protection as soon as possible, * Remove victim from harm, * Secure scene prior to leaving.		8
Minimum Total	Number in parenthesis is based on engines staffed with 4	22 (23)

MCFRS
COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Page 2 of 2	
First arriving unit qualifier: Any of the following	
ERF unit qualifier (last unit to arrive of the following package): <ul style="list-style-type: none">• 1 Primary Unit Type Engine AND• 1 Primary Unit Type Aerial AND• 1 Primary Unit Type Rescue Squad AND• 1 Primary Unit Type Ambulance AND• 1 Secondary Unit Type Medic Unit AND• 1 Primary Unit Type Chief AND• 1 Specific Unit "TR700" or "TR700B"	
Program: Technical Rescue Special Risk (Structural Collapse Rescue)	
MCFRS response program call type groupings: Group 1 Special Ops Group 2 Technical Rescue Group 3 TR-SR Group 4 TR-SR	

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Class: Special	Program: Technical Rescue (Trench Rescue) (Page 1 of 2)	Risk Category: TR-SR
Critical Tasks		Minimum Personnel
Chief Officer: Incident Command (Life Safety, Incident Stabilization, Property Conservation.)		1
Engine: * Provide Initial On Scene Report (IOSR), , * Position at least 250' away, * Eliminate any source of vibration, * Secure perimeter and deny entry, * Locate supervisor, calling party, or competent person, *Provide Situation Update Reports,		3 (4)
Truck: * Position at least 250' away, * Initiate utility control and lock out/tag out, * Begin development of rescue plan, * Assist Technical Rescue Unit with manpower as needed, *Provide Situation Update Reports,		3
Rescue Squad: * Initiate atmospheric monitoring, * Identify number of victims and locations, * Assist in development of rescue plan, * Assist Technical Rescue Unit with manpower as needed, *Provide Situation Update Reports.		3
Ambulance: Park to allow for rapid egress and do not impede access to the scene, *Immediately locate, assess, and care for victims, * Establish aid station and announce location.		2
Medic Unit: Park to allow for rapid egress and do not impede access to the scene, * Proceed to aid station with ALS equipment to provide ALS first response capability.		2
Technical Rescue Unit: * Advise command of arrival, * Work with Incident Command to establish tactical objectives, * Conduct a risk/benefit annalysis, * Ensure atmospheric monitoring and lock out/tag out is in place if required, * Confirm number of victims and locations, * Confirm untilities are controled if required, * Ensure no one is within 10' of an exposed edge without travel restriction, * Ensure ground pads are in place prior to accessing trench lip, * Make contact with the victim, * Provide initial patient protection as soon as possible, * Remove victim from harm, * Secure scene prior to leaving.		8
Minimum Total	Number in parenthesis is based on engines staffed with 4	22 (23)

MCFRS
COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Page 2 of 2	
First arriving unit qualifier: Any of the following	
ERF unit qualifier (last unit to arrive of the following package):	
<ul style="list-style-type: none">• 1 Primary Unit Type Engine AND• 1 Primary Unit Type Aerial AND• 1 Primary Unit Type Rescue Squad AND• 1 Primary Unit Type Ambulance AND• 1 Secondary Unit Type Medic Unit AND• 1 Primary Unit Type Chief AND• 1 Specific Unit "TR700" or "TR700B"	
Program: Technical Rescue Special Risk (Trench Rescue)	
MCFRS response program call type groupings:	
Group 1 Special Ops	
Group 2 Technical Rescue	
Group 3 TR-SR	
Group 4 TR-SR	

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Class: Moderate	Program: Water-Ice Rescue	Risk Category: WIR-MR
Critical Tasks		Minimum Personnel
Chief Officer: Incident Command (Life Safety, Incident Stabilization, Property Conservation.)		1
Engine or Truck or Rescue Squad: * Provide Initial On Scene Report (IOSR), * Identify and separate witnesses, * Ensure no one is allowed within 10' of waters edge without a PFD, * Attempt to identify Point Last Seen (PLS) and Point of Entry (POE), * Mark water line if incident involves moving water, * Provide Situation Update Reports, * Ensure at least 2 upstream spotters and 2 downstream safety personnel are in place prior to anyone entering the hot zone (Water)		3 (4)
Ambulance or Medic Unit: Park to allow for rapid egress and do not impede access to the scene, *Immediately locate, assess, and care for victims, * Establish aid station near primary launch site and announce location.		2
Boat: * Coordinate with command to confirm incident objectives, * Recommend additional resources if needed, * Interview witnesses, * Ensure at least 2 upstream spotters and 2 downstream safety personnel are in place prior to anyone entering the hot zone (Water), * Ensure proper rescue sequence is followed (Reach, Throw, Row, Go, Helo), * Provide floatation to victims, * Remove victims from harm		2
Minimum Total	Number in parenthesis is based on engine staffed with 4	8 (9)
First arriving unit qualifier: Any of the following		
ERF unit qualifier (last unit to arrive of the following package): <ul style="list-style-type: none"> • 1 Primary Unit Type Engine OR • 1 Primary Unit Type Aerial OR • 1 Primary Unit Type Rescue Squad AND • 1 Primary Unit Type Ambulance OR • 1 Secondary Unit Type Medic Unit AND • 1 Primary Unit Type Chief AND • 1 Primary Unit Type Boat 		
Program: Water and Ice Rescue Moderate Risk		
MCFRS response program call type groupings: <ul style="list-style-type: none"> Group 1 Special Ops Group 2 Water Ice Rescue Group 3 WIR-MR Group 4 WIR-MR 		

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Class: High	Program: Water-Ice Rescue	Risk Category: WIR-HR
Critical Tasks		Minimum Personnel
Chief Officer: Incident Command (Life Safety, Incident Stabilization, Property Conservation.)		1
Engine or Truck or Rescue Squad: * Provide Initial On Scene Report (IOSR), * Identify and separate witnesses, * Ensure no one is allowed within 10' of waters edge without a PFD, * Attempt to identify Point Last Seen (PLS) and Point of Entry (POE), * Mark water line if incident involves moving water, * Provide Situation Update Reports, * Ensure at least 2 upstream spotters and 2 downstream safety personnel are in place prior to anyone entering the hot zone (Water)		3 (4)
Ambulance or Medic Unit: Park to allow for rapid egress and do not impede access to the scene, *Immediately locate, assess, and care for victims, * Establish aid station near primary launch site and announce location.		2
Boat-1: * Coordinate with command to confirm incident objectives, * Recommend additional resources if needed, * Interview witnesses, * Ensure at least 2 upstream spotters and 2 downstream safety personnel are in place prior to anyone entering the hot zone (Water), * Ensure proper rescue sequence is followed (Reach, Throw, Row, Go, Helo), * Provide floatation to victims, * Remove victims from harm		2
Boat-2: * If possible approach from opposite side of the incident, * Coordinate with command and first boat to confirm incident objectives, * Act as primary safety while personnel are working in the hot zone (Water).		2
Minimum Total	Number in parenthesis is based on engine staffed with 4	10 (11)
First arriving unit qualifier: Any of the following		
ERF unit qualifier (last unit to arrive of the following package):		
<ul style="list-style-type: none"> • 1 Primary Unit Type Engine OR • 1 Primary Unit Type Aerial OR • 1 Primary Unit Type Rescue Squad AND • 1 Primary Unit Type Ambulance OR • 1 Secondary Unit Type Medic Unit AND • 1 Primary Unit Type Chief AND • 2 Primary Unit Type Boat 		
Program: Water and Ice Rescue High Risk		
MCFRS response program call type groupings:		
Group 1	Special Ops	
Group 2	Water Ice Rescue	
Group 3	WIR-HR	
Group 4	WIR-HR	

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Class: Special	Program: Water-Ice Rescue (Page 1 of 2)	Risk Category: WIR-SR
Critical Tasks		Minimum Personnel
Chief Officer: Incident Command (Life Safety, Incident Stabilization, Property Conservation.)		1
Engine or Truck or Rescue Squad: Proceed to closest access to dispatch location, * Do not impede access to the scene, * Ensure no one is allowed within 10' of waters edge without a PFD, * Identify, separate and interview witnesses, * Provide land based search activities in area closest to dispatched location, * Provide Situation Update Reports, * Provide manpower if victim removal by land is determined.		3 (4)
Ambulance: Park to allow for rapid egress and do not impede access to the scene, *Immediately locate, assess, and care for victims, * Establish aid station near primary launch site and announce location.		2
Medic Unit: Park to allow for rapid egress and do not impede access to the scene, * Proceed to aid station with ALS equipment to provide ALS first response capability.		2
Swift Water Boat-1: * Respond to closest launch site, * Provide an Initial On Scene Report (IOSR), * Advise command once launched and PAR level, * Proceed to dispatched location, * Identify, separate and interview witnesses, * Begin search activities at dispatched location, * Provide Situation Update Reports, * Ensure proper rescue sequence is followed (Reach, Throw, Row, Go, Helo), * Provide floatation to victims, * Remove victims from harm		2
Swift Water Boat-2: * Respond to closest launch site, * Advise command once launched and PAR level, * Proceed to dispatched location, * Act as primary safety for Swift Water Boat 1 while personnel are working in the hot zone (Water).		2
Swift Water Boat-3: * Respond to closest launch site or secondary site if advised by Swift Water Boat 1 or Incident Command, * Advise command once launched and PAR level, * Proceed to area downstream of dispatched location, * Identify, separate and interview any additional witnesses, * Begin search activities in area downstream of dispatched location, * Provide Situation Update Reports, * Ensure proper rescue sequence is followed (Reach, Throw, Row, Go, Helo), * Provide floatation to victims, * Remove victims from harm		2
Swift Water Boat-4: Respond to closest launch site or secondary site if advised by Swift Water Boat 1 or Incident Command, * Advise command once launched and PAR level, * Proceed to area downstream of dispatched location, * Act as primary safety for Swift Water Boat 3 while personnel are working in the hot zone (Water).		2
Minimum Total	Number in parenthesis is based on engine staffed with 4	16 (17)

MCFRS
COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Page 2 of 2	
First arriving unit qualifier: Any of the following	
ERF unit qualifier (last unit to arrive of the following package):	
<ul style="list-style-type: none">• 1 Primary Unit Type Engine OR• 1 Primary Unit Type Aerial OR• 1 Primary Unit Type Rescue Squad AND• 1 Primary Unit Type Ambulance AND• 1 Secondary Unit Type Medic Unit AND• 1 Primary Unit Type Chief AND• 4 Secondary Unit Type Swift Water Boat	
Program: Water and Ice Rescue Special Risk	
MCFRS response program call type groupings:	
Group 1 Special Ops	
Group 2 Water Ice Rescue	
Group 3 WIR-SR	
Group 4 WIR-SR	

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Class: High	Program: Aircraft Rescue Firefighting (page 1 of 2)	Risk Category: ARF-HR
Critical Tasks		Minimum Personnel
Chief Officer: * Incident Command (Life Safety, Incident Stabilization, Property Conservation.)		1
1st Due Engine: * Provide Initial On Scene Report (IOSR), , *Confirm incident location. * If applicable establish uninterrupted water supply of a minimum of 500 GPM for 30 minutes with supply line(s) maintained by an operator, * Establish command and assign units/groups/division as as needed. * Consider need for Mass Casualty response * Locate airport or airpark manager if applicable, * Position to allow approach from uphill and upwind in line with front of aircraft, * If personnel must enter the runway require the Airport/Airpark manager, TRACON, and ECC to verbally announce that "The runway is unsafe", * Ensure verbal announcement of runway being unsafe is repeated on UNICOM channel, * Ensure personnel do not approach aircraft until engines are shut down and rotors/propellers have stopped turning, *Provide Situation Update Reports		3 (4)
2nd Due Engine: * If applicable ensure and expand water supply for first due engine, * If directed to stage act as Staging Officer, * Ensure and expand upon water supply for First Due Engine, * Provide Situation Update Reports		3 (4)
3rd Due Engine * If applicable establish uninterrupted secondary water supply of a minimum of 500 GPM for 30 minutes with supply line(s) maintained by an operator, * Position to allow approach from uphill and upwind in line with front of aircraft, *Provide Situation Update Reports		3 (4)
Truck: * Position to allow approach from uphill and upwind in line with front of aircraft, * Prepare to assist in forcible entry, evacuation, rearch, rescue, and triage of victims, * Prepare for large volume elevated master stream if needed, *Provide Situation Update Reports		3
Rescue Squad: * Position to best utilize equipment preferably uphill and upwind, * Prepare to assist in evacuation, rearch, rescue, and triage of victims, *Provide Situation Update Reports		3
1st Ambulance or Medic Unit * Establish an aid station and rehab in the cold zone as identified by command, * Prepare to provide first aid to victims, * Prepare to provide rehab services to fire/rescue personnel		2
2nd Ambulance or Medic Unit *Report to aid station in the cold zone as identified by command, * Prepare to provide advanced life support to victims, * Prepare to provide rehab services to fire/rescue personnel		2
Haz-Mat Unit: * Ensure proper level of PPE, isolation distance, and decon procedures are identified and communicated to everyone on the event, * Assist in establishing cold, warm, and hot zones, *Ensure emergency gross decon is established for victims and responders if needed, * Ensure full decon is established if required, * Monitor, test, and identify hazardous products if needed, * Provide Situation Update Reports		3 (4)
Minimum Total	Number in parenthesis is based on engines staffed with 4	23 (27)

MCFRS

COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Page 2 of 2

First arriving unit qualifier: Any of the following	
ERF unit qualifier (last unit to arrive of the following package):	
<ul style="list-style-type: none">• 3 Primary Unit Type Engine AND• 1 Primary Unit Type Aerial AND• 1 Primary Unit Type Rescue Squad AND• 2 Primary Unit Type Ambulance OR• 2 Secondary Unit Type Medic Unit AND• 1 Primary Unit Type Chief AND• 1 Primary Unit Type Hazmat	
Program: Aircraft Rescue Firefighting High Risk (CAD Plan HM2)	
MCFRS response program call type groupings:	
Group 1 Special Ops	
Group 2 Aircraft Rescue Firefighting	
Group 3 ARF-HR	
Group 4 ARF-HR	

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Class: Special	Program: Aircraft Rescue Firefighting 1 of 2)	(page	Risk Category: ARF-SR
Critical Tasks			Minimum Personnel
1st and 2nd Due Chiefs: * Incident Command (Life Safety, Incident Stabilization, Property Conservation.)			2
1st Due Engine: * Provide Initial On Scene Report (IOSR), , *Confirm incident location. * If applicable establish uninterrupted water supply of a minimum of 500 GPM for 30 minutes with supply line(s) maintained by an operator, * Establish command and assign units/groups/division as as needed. * Consider need for Mass Casualty response * Locate airport or airpark manager if applicable, * Position to allow approach from uphill and upwind in line with front of aircraft, * If personnel must enter the runway require the Airport/Airpark manager, TRACON, and ECC to verbally announce that "The runway is unsafe", * Ensure verbal announcement of runway being unsafe is repeated on UNICOM channel, * Ensure personnel do not approach aircraft until engines are shut down and rotors/propellers have stopped turning, *Provide Situation Update Reports			3 (4)
2nd Due Engine: * If applicable ensure and expand water supply for first due engine, * If directed to stage act as Staging Officer, * Ensure and expand upon water supply for First Due Engine, * Provide Situation Update Reports			3 (4)
3rd Due Engine: * If applicable establish uninterrupted secondary water supply of a minimum of 500 GPM for 30 minutes with supply line(s) maintained by an operator, * Position to allow approach from uphill and upwind in line with front of aircraft, *Provide Situation Update Reports			3 (4)
4th Due Engine: * If applicable ensure and expand water supply for third due engine, * Prepare to assist with fire extinguishment, search, rescue, and triage if needed, *Provide Situation Update Reports			3 (4)
5th Due Engine: * If applicable establish uninterrupted secondary water supply of a minimum of 500 GPM for 30 minutes with supply line(s) maintained by an operator, * Establish RIC at the edge of the cold zone, *Provide Situation Update Reports			3 (4)
1st Due Truck: * Position to allow approach from uphill and upwind in line with front of aircraft, * Prepare to assist in forcible entry, evacuation, search, rescue, and triage of victims, * Prepare for large volume elevated master stream if needed, *Provide Situation Update Reports			3
2nd Due Truck: * Position to allow approach from uphill and upwind in line with front of aircraft, * Prepare to assist in forcible entry, evacuation, search, rescue, and triage of victims, * Prepare for large volume elevated master stream if needed, *Provide Situation Update Reports			3
Rescue Squad: * Position to best utilize equipment preferably uphill and upwind, * Prepare to assist in evacuation, search, rescue, and triage of victims, *Provide Situation Update Reports			3

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Page 2 of 2		
Haz-Mat Unit: * Ensure proper level of PPE, isolation distance, and decon procedures are identified and communicated to everyone on the event, * Assist in establishing cold, warm, and hot zones, *Ensure emergency gross decon is established for victims and responders if needed, * Ensure full decon is established if required, * Monitor, test, and identify hazardous products if needed, * Provide Situation Update Reports		3 (4)
Ambulance or Medic Unit: * Establish an aid station and rehab in the cold zone as identified by command, * Prepare to provide first aid to victims, * Prepare to provide rehab services to fire/rescue personnel		2
Minimum Total	Number in parenthesis is based on engines staffed with 4	31 (37)
First arriving unit qualifier: Primary Unit Type: Any of the following		
ERF unit qualifier (last unit to arrive of the following package):		
ERF unit qualifier (last unit to arrive of the following package): • 5 Primary Unit Type Engine AND • 2 Primary Unit Type Aerial AND • 1 Primary Unit Type Rescue Squad AND • 1 Primary Unit Type Ambulance OR • 1 Secondary Unit Type Medic Unit AND • 1 Primary Unit Type Chief AND • 1 Primary Unit Type Hazmat Program: Aircraft Rescue Firefighting Special Risk (CAD Plan HM3 & HM3G)		
MCFRS response program call type groupings: Group 1 Special Ops Group 2 Aircraft Rescue Firefighting Group 3 ARF-SR Group 4 ARF-SR		

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Class: Moderate	Program: Bomb Squad	Risk Category: BS-MR
Critical Tasks		Minimum Personnel
Hazardous Devices Technician(s): *Confirm evacuation perimeter, *Gather information and evaluate the situation including an appropriate risk analysis, * Determine additional resources needed, *Evaluate bomb squad staging area for security and safety, *Based on situation analysis, determine initial course of action		1 (2)
Bomb Unit 700: *Report to established safe staging area, or set one up, *Based on initial situation analysis, set up appropriate tools/equipment, *Maintain/ensure staging area security, *Support HDT operations		1
Minimum Total	Number in parenthesis means 2 HDTs w/o BU700	2 (2)
First arriving unit qualifier: Hazardous Devices Technician or BU700		
ERF unit qualifier (last unit to arrive of the following package):		
• 2 Primary Unit Hazardous Devices Technician OR		
• 1 Primary Unit Type Hazardous Devices Technician AND		
• 1 Secondary Unit Type Bomb		
Program: Bomb Squad Moderate Risk (CAD Plan EX)		
MCFRS response program call type groupings:		National Standards linkage: DOJ-FBI National Guidelines for Bomb Technicians (4/2016)
Group 1	Special Ops	
Group 2	Bomb Squad	
Group 3	BS-MR	
Group 4	BS-MR	

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Class: High	Program: Bomb Squad	Risk Category: BS-HR	
Critical Tasks		Minimum Personnel	
Hazardous Devices Technician(s): *Confirm evacuation perimeter, *Gather information and evaluate the situation including an appropriate risk analysis, *Determine additional resources needed, *Evaluate bomb squad staging area for security and safety, *Based on situation analysis, determine initial course of action		1 (2)	
Bomb Unit 700: *Report to established safe staging area, or set one up, *Based on initial situation analysis, set up appropriate tools/equipment, *Maintain/ensure staging area security, *Support HDT operations		1	
Engine or Truck or Rescue Squad or Ambulance or Medic Unit: *Position and operate as ordered by the IC, *Remain cautious and vigilant of scene safety/security, *Remain prepared for response to injured HDT/personnel or unintended device functioning		2 or 3 (4)	
Minimum Total	Number in parenthesis means 2 HDT's w/o BU700 & engine /4	4 or 5 (6)	
First arriving unit qualifier: Fire Marshal or BU700			
ERF unit qualifier (last unit to arrive of the following package):			
• 2 Primary Unit Hazardous Devices Technician AND			
• 1 Secondary Unit Type Bomb AND			
• 1 Primary Unit Type Engine OR Aerial OR Rescue Squad OR Ambulance OR Medic Unit			
Program: Bomb Squad High Risk (CAD Plan EX)			
MCFRS response program call type groupings:		National Standards linkage: DOJ-FBI National Guidelines for Bomb Technicians (4/2016)	
Group 1	Special Ops		
Group 2	Bomb Squad		
Group 3	BS-HR		
Group 4	BS-HR		

MCFRS
COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Class: Special	Program: Bomb Squad (page 1 of 2)	Risk Category: BS-SR
Critical Tasks		Minimum Personnel
Hazardous Devices Technician(s): *Confirm evacuation perimeter, *Gather information and evaluate the situation including an appropriate risk analysis, *Determine additional resources needed, *Evaluate bomb squad staging area for security and safety, *Based on situation analysis, determine initial course of action		1 (2)
Bomb Unit 700: *Report to established safe staging area, or set one up, *Based on initial situation analysis, set up appropriate tools/equipment, *Maintain/ensure staging area security, *Support HDT operations		1 (0)
Haz-Mat Unit: *Position and operate as ordered by the IC, *Remain cautious and vigilant of scene safety/security, *Support operation as required		3 (4)
Minimum Total	Number in parenthesis means 2 HDT's with no BU as well as engine staffed with 4	5 (6)
OR:		
Hazardous Devices Technician(s): *Confirm evacuation perimeter, *Gather information and evaluate the situation including an appropriate risk analysis, *Determine additional resources needed, *Evaluate bomb squad staging area for security and safety, *Based on situation analysis, determine initial course of action		1
Bomb Unit 700: *Report to established safe staging area, or set one up, *Based on initial situation analysis, set up appropriate tools/equipment, *Maintain/ensure staging area security, *Support HDT operations		1
Engine or Truck or Rescue Squad: *Position and operate as ordered by the IC, *Remain cautious and vigilant of scene safety/security, *Remain prepared for response to injured HDT/personnel or unintended device functioning		3 (4)
Ambulance or Medic Unit: *Position and operate as ordered by the IC, *Remain cautious and vigilant of scene safety/security, *Remain prepared for response to injured HDT/personnel or unintended device functioning		2
Chief: *Position and operate as ordered by the IC, *Remain cautious and vigilant of scene safety/security, *Support operation as required		1
Minimum Total	Number in parenthesis means 2 HDT's w/o BU700 & engine /4	8 (9)

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Page 2 of 2			
First arriving unit qualifier: Any of the following:			
ERF unit qualifier (last unit to arrive of the following packages):			
• 2 Primary Unit Type Hazardous Devices Technician AND			
• 1 Secondary Unit Type Bomb AND			
• 1 Primary Unit Type Hazmat			
		OR	
• 2 Primary Unit Type Hazardous Devices Technician AND			
• 1 Secondary Unit Type Bomb AND			
• 1 Primary Unit Type Engine OR Aerial OR Rescue Squad AND			
• 1 Primary Unit Type Ambulance or Secondary Unit Type Medic AND			
• 1 Primary Unit Type Chief			
Program: Bomb Squad Special Risk (CAD Plan EX)			
MCFRS response program call type groupings:			National Standards linkage: DOJ-FBI National Guidelines for Bomb Technicians (4/2016)
Group 1	Special Ops		
Group 2	Bomb Squad		
Group 3	BS-SR		
Group 4	BS-SR		

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Service Delivery Total Response Time Continuum and Related Components [CC 2C.5]

MCFRS identifies total response time (TRT) for delivery of services as the summation of three component times: call processing time, turnout time and travel time. Each component time, as well as TRT, is documented and analyzed at the 90th percentile for each of the department's 21 emergency service programs, broken down by the four population density zones established by MCFRS (i.e., Metropolitan, Urban, Suburban, Rural), as shown in the references below. Call processing time, turnout time, travel time and TRT are documented for first-arriving unit and for the effective response force (ERF) as shown in the tables referenced below. The department regularly mines and analyzes 90th percentile response time data to determine whether services associated with each emergency program are consistent and reliable across the entire response area (i.e., the County), with greatest attention given to core programs - ALS and Fire-Full Assignment - due to the corresponding high level of risk to life and property.

The department's baseline statements reflect actual performance from FY2013 to FY2017. The department does integrate response time data from automatic and, when applicable, mutual aid neighboring resources, including in-county federal fire departments, to provide its first-arriving and effective response force 90th percentile response times. MCFRS also acknowledges the 90th percentile response times are sometimes skewed with smaller datasets, especially when erroneous outlier unit arrival times occur and cannot be validated.

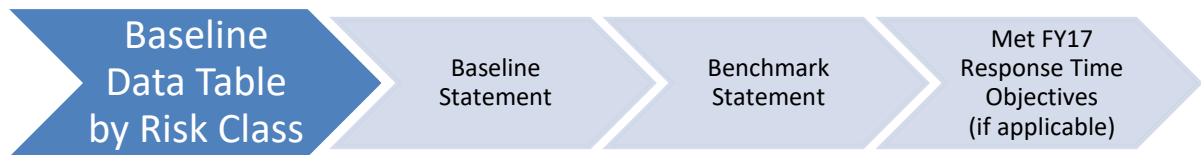
In an effort to reduce redundancy within each of the following baseline and benchmark written statements, minimum and actual staffing apparatus levels are provided below. However, for a more granular understanding of MCFRS daily staffing, the reader is encouraged to review the *Description of MCFRS Programs and Services* and more specifically the *Emergency Response and Public Assistance Services* section of this manual. In addition, MCFRS/AHJ ERF staffing levels are included within each of the Critical Task Analysis worksheets in the preceding section of this CRA/SOC document, *Programmatic Critical Task Analysis by Risk Class for 1st Due & ERF [CC 2C.4]*.

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Overview of MCFRS Daily Minimum and Actual Staffing Levels

- Minimum daily staffing levels for engine companies: 3 personnel
- Actual daily staffing for 33 out of 35 engine companies: 4 personnel
- Minimum and actual daily staffing for truck companies (aerial) and heavy rescue squad companies: 3 personnel
- Minimum and actual staffing for medic units and ambulances: 2 personnel
- Minimum & actual staffing for certified chief officers/battalion chiefs: 1
- Minimum & actual staffing level for the safety officer: 1
- Minimum & actual staffing level for EMS supervisors: 1
- Minimum & actual staffing level for ALS chase car/unit: 1 or 2

The flow of information on the following pages for the each of the MCFRS 21 service delivery programs will follow a pattern that groups risk categories (i.e., suppression, EMS, hazmat, water-ice rescue, technical rescue, bomb squad responses) and begins with the lowest risk class (if applicable).



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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Fire Suppression / Risk Classification: Low

(Low Risk) Fire Suppression (Single Engine) – A1F - 90th Percentile Times - Baseline Performance		FY 2013 - FY 2017	FY 2017	FY 2016	FY 2015	FY 2014	FY 2013
Alarm Handling Pick-up to Dispatch	Metropolitan	03:54	04:19	04:12	03:36	03:29	03:30
	Urban	04:05	04:31	04:37	04:13	03:14	03:24
	Suburban	04:04	04:40	04:11	03:43	04:18	03:23
	Rural	04:05	04:21	04:37	04:04	03:24	03:39
	Countywide	03:59	04:24	04:16	03:44	03:31	03:30
Turnout Time Turnout Time 1st Unit	Metropolitan	01:58	01:57	01:53	02:03	01:56	02:04
	Urban	02:05	01:59	02:10	02:03	02:19	02:03
	Suburban	02:02	02:02	02:08	02:02	01:57	01:59
	Rural	02:31	02:19	02:29	02:45	03:03	02:24
	Countywide	02:06	02:01	02:04	02:10	02:00	02:08
Travel Time	Travel Time 1st Unit Distribution	Metropolitan	07:19	07:27	07:11	07:07	07:43
		Urban	09:04	08:36	09:48	08:49	09:32
		Suburban	08:35	07:54	07:56	09:18	09:18
		Rural	11:15	10:39	11:19	10:48	11:51
		Countywide	08:32	08:25	08:34	08:31	08:36
	Travel Time ERF Concentration	Metropolitan	N/A	N/A	N/A	N/A	N/A
		Urban	N/A	N/A	N/A	N/A	N/A
		Suburban	N/A	N/A	N/A	N/A	N/A
		Rural	N/A	N/A	N/A	N/A	N/A
		Countywide	N/A	N/A	N/A	N/A	N/A
Total Response Time	Total Response Time 1st Unit on Scene Distribution	Metropolitan	11:49	12:20	11:42	11:15	11:28
			n=4936	n=1038	n=991	n=836	n=972
		Urban	14:15	13:58	15:17	14:58	13:35
			n=702	n=167	n=133	n=118	n=146
		Suburban	13:47	12:58	13:33	14:40	14:45
			n=743	n=166	n=157	n=27	n=141
		Rural	16:14	15:38	16:52	16:50	15:47
			n=1272	n=246	n=295	n=218	n=258
		Countywide	13:09	13:24	13:17	13:13	12:54
			n=7653	n=1617	n=1576	n=1299	n=1517
	Total Response Time ERF Concentration	Metropolitan	N/A	N/A	N/A	N/A	N/A
			N/A	N/A	N/A	N/A	N/A
		Urban	N/A	N/A	N/A	N/A	N/A
			N/A	N/A	N/A	N/A	N/A
		Suburban	N/A	N/A	N/A	N/A	N/A
			N/A	N/A	N/A	N/A	N/A
		Rural	N/A	N/A	N/A	N/A	N/A
			N/A	N/A	N/A	N/A	N/A
		Countywide	N/A	N/A	N/A	N/A	N/A
			N/A	N/A	N/A	N/A	N/A

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Fire Suppression / Risk Classification: Low

BASELINE (ACTUAL) PERFORMANCE STATEMENT

LOW RISK FIRE-ADAPTIVE – SINGLE ENGINE (A1F)

For low-risk adaptive A1F incidents, the baseline total response time (TRT) at the 90th percentile for arrival of the engine company is as follows in each of the density zones:

Metropolitan: 11:49 / Urban: 14:15 / Suburban: 13:47 / Rural: 16:14

For phone to dispatch (PtoD) call-processing at the 90th percentile and Countywide: **3:59**

For turnout time at the 90th percentile and Countywide: **02:06**

The travel time for the arrival of the engine company is as follows in each of the density zones:

Metropolitan: 07:19 / Urban: 09:04 / Suburban: 08:35 / Rural: 11:15

Note: The ERF is the same as the first unit as this low-risk classification is only measuring one unit.

The first-arriving engine for all fire-related risk levels shall be capable of: Establishing an uninterrupted water supply of a minimum of 500 GPM for 30 minutes with supply line(s) maintained by an operator; Conducting a 360 degree size-up and announcing report; Providing Situation Update Reports; Advancing an attack line which has a minimum flow rate of 150 GPM and operated by a minimum of two members; Locating, confining, and extinguishing fire; Announcing when the line is operating on the fire or if fire's location cannot be quickly determined; Announcing unexpected hazards.

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Fire Suppression / Risk Classification: Low

BENCHMARK (TARGET GOAL) PERFORMANCE STATEMENT

LOW RISK FIRE-ADAPTIVE – SINGLE ENGINE (A1F)

For low-risk adaptive A1F incidents, the benchmark target goal for total response time (TRT) at the 90th percentile for arrival of the engine company is as follows in each of the density zones:

Metropolitan: 09:15 / Urban: 09:45 / Suburban: 10:30 / Rural: 11:45

For phone to dispatch (PtoD) call-processing at the 90th percentile for all zones: **02:00**

For turnout time at the 90th percentile for all zones: **01:30**

The travel time for the arrival of the engine company is as follows in each of the density zones:

Metropolitan: 05:45 / Urban: 06:15 / Suburban: 07:00 / Rural: 08:15

Note: The ERF is the same as the first unit as this low-risk classification is only measuring one unit.

The first-arriving engine for all fire-related risk levels shall be capable of: Establishing an uninterrupted water supply of a minimum of 500 GPM for 30 minutes with supply line(s) maintained by an operator; Conducting a 360 degree size-up and announcing report; Providing Situation Update Reports; Advancing an attack line which has a minimum flow rate of 150 GPM and operated by a minimum of two members; Locating, confining, and extinguishing fire; Announcing when the line is operating on the fire or if fire's location cannot be quickly determined; Announcing unexpected hazards.

Risk Category: Fire Suppression – Other Hazard / Risk Classification: Low

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

(Low Risk) Other Hazard (Single Unit) – A1N - 90th Percentile Times - Baseline Performance		FY 2013 - FY 2017	FY 2017	FY 2016	FY 2015	FY 2014	FY 2013	
Alarm Handling Pick-up to Dispatch		Metropolitan	03:30	03:30	03:21	03:41	03:31	03:34
		Urban	03:29	03:27	03:10	03:38	03:33	03:37
		Suburban	03:19	03:20	03:07	03:16	03:34	03:23
		Rural	03:41	03:47	03:28	03:50	03:36	03:50
		Countywide	03:30	03:31	03:20	03:39	03:32	03:34
Turnout Time Turnout Time 1st Unit		Metropolitan	02:01	01:58	02:00	02:01	02:00	02:07
		Urban	02:01	02:02	02:00	01:59	01:55	02:08
		Suburban	02:03	01:58	02:03	02:09	01:59	02:07
		Rural	02:14	02:12	02:13	02:21	02:06	02:18
		Countywide	02:02	02:00	02:01	02:03	02:00	02:08
Travel Time	Travel Time 1st Unit Distribution	Metropolitan	06:36	06:06	06:08	07:07	06:50	07:43
		Urban	07:45	07:15	07:05	08:08	08:08	08:56
		Suburban	07:53	07:21	07:21	08:27	08:20	08:52
		Rural	11:01	09:54	10:21	11:22	12:08	11:51
		Countywide	07:22	06:47	06:51	07:53	07:44	08:36
	Travel Time ERF Concentration	Metropolitan	N/A	N/A	N/A	N/A	N/A	N/A
		Urban	N/A	N/A	N/A	N/A	N/A	N/A
		Suburban	N/A	N/A	N/A	N/A	N/A	N/A
		Rural	N/A	N/A	N/A	N/A	N/A	N/A
		Countywide	N/A	N/A	N/A	N/A	N/A	N/A
Total Response Time	Total Response Time 1st Unit on Scene Distribution	Metropolitan	10:45	10:14	10:18	11:25	11:05	11:18
			31004	n=7726	n=7563	n=5536	n=5108	n=5367
		Urban	11:58	11:18	11:15	12:20	12:09	13:16
			n=2585	n=644	n=607	n=427	n=457	n=469
		Suburban	11:55	11:14	11:32	12:32	12:29	12:18
			n=3502	n=871	n=917	n=628	n=541	n=566
		Rural	15:43	14:26	14:44	16:19	16:19	17:30
			n=4007	n=1025	n=981	n=690	n=636	n=696
		Countywide	11:35	10:51	11:03	12:11	11:56	12:26
			41098	10269	10068	n=7281	n=6742	n=7098
	Total Response Time ERF Concentration	Metropolitan	N/A	N/A	N/A	N/A	N/A	N/A
			N/A	N/A	N/A	N/A	N/A	N/A
		Urban	N/A	N/A	N/A	N/A	N/A	N/A
			N/A	N/A	N/A	N/A	N/A	N/A
		Suburban	N/A	N/A	N/A	N/A	N/A	N/A
			N/A	N/A	N/A	N/A	N/A	N/A
		Rural	N/A	N/A	N/A	N/A	N/A	N/A
			N/A	N/A	N/A	N/A	N/A	N/A
		Countywide	N/A	N/A	N/A	N/A	N/A	N/A
			N/A	N/A	N/A	N/A	N/A	N/A

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Fire Suppression – Other Hazard / Risk Classification: Low

BASELINE (ACTUAL) PERFORMANCE STATEMENT

LOW RISK NON-FIRE / OTHER HAZARD ADAPTIVE – SINGLE UNIT (A1N)

For low-risk adaptive A1N incidents, the baseline total response time (TRT) at the 90th percentile for arrival of the appropriate unit is as follows in each of the density zones:

Metropolitan: 10:45 / Urban: 11:58 / Suburban: 11:55 / Rural: 15:43

For phone to dispatch (PtoD) call-processing at the 90th percentile and Countywide: **3:30**

For turnout time at the 90th percentile and Countywide: **02:02**

The travel time for the arrival of the appropriate unit is as follows in each of the density zones:

Metropolitan: 06:36 / Urban: 07:45 / Suburban: 07:53 / Rural: 11:01

Note: The ERF is the same as the first unit as this low-risk classification is only measuring one unit.

The first-arriving unit for all other-hazard low risk incidents shall be capable of:

Conducting an effective Initial On-Scene Report and verbalizing it via radio;

Determining incident objectives and deploying appropriate strategy to mitigate incident;

Managing any other resources assigned; Requesting additional resources if needed;

Providing Situation Update Reports; Announcing unexpected hazards.

BENCHMARK (TARGET GOAL) PERFORMANCE STATEMENT

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

LOW RISK NON-FIRE / OTHER HAZARD ADAPTIVE – SINGLE UNIT (A1N)

For low-risk adaptive A1N incidents, the benchmark target goal for total response time (TRT) at the 90th percentile for arrival of the appropriate unit is as follows in each of the density zones:

Metropolitan: 10:15 / Urban: 10:45 / Suburban: 11:30 / Rural: 12:45

For phone to dispatch (PtoD) call-processing at the 90th percentile all zones: **02:00**

For turnout time at the 90th percentile all zones: **01:30**

The travel time for the arrival of the engine company is as follows in each of the density zones:

Metropolitan: 06:45 / Urban: 07:15 / Suburban: 08:00 / Rural: 09:15

Note: The ERF is the same as the first unit as this low-risk classification is only measuring one unit.

The first-arriving unit for all other-hazard low risk incidents shall be capable of:

- Conducting an effective Initial On-Scene Report and verbalizing it via radio;
- Determining incident objectives and deploying appropriate strategy to mitigate incident;
- Managing any other resources assigned; Requesting additional resources if needed;
- Providing Situation Update Reports; Announcing unexpected hazards.

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Fire Suppression / Risk Classification: Moderate

(Moderate Risk) Fire Suppression (2 and 1) – A2-3 - 90th Percentile Times - Baseline Performance		FY 2013 - FY 2017	FY 2017	FY 2016	FY 2015	FY 2014	FY 2013	
Alarm Handling Pick-up to Dispatch		Metropolitan	02:59	03:40	03:39	02:49	02:34	02:34
		Urban	02:48	03:38	03:28	02:29	02:35	02:38
		Suburban	02:48	03:28	03:27	02:43	02:23	02:35
		Rural	03:06	03:38	04:03	02:51	02:44	02:47
		Countywide	02:58	03:41	03:39	02:48	02:34	02:35
Turnout Time Turnout Time 1st Unit		Metropolitan	02:06	02:02	02:06	02:06	02:06	02:12
		Urban	02:10	02:07	02:08	02:16	02:09	02:09
		Suburban	02:13	02:11	02:18	02:10	02:10	02:21
		Rural	02:25	02:26	02:41	02:17	02:25	02:29
		Countywide	02:10	02:05	02:10	02:07	02:08	02:13
Travel Time	Travel Time 1st Unit Distribution	Metropolitan	05:10	05:10	05:18	05:15	05:10	05:03
		Urban	06:18	06:31	06:35	06:17	06:26	05:45
		Suburban	05:51	06:24	06:25	05:42	05:51	05:53
		Rural	08:06	08:27	09:43	07:42	08:04	08:01
		Countywide	05:37	05:32	05:45	05:35	05:41	05:34
	Travel Time ERF Concentration	Metropolitan	08:23	08:01	08:20	08:40	08:42	08:32
		Urban	09:32	09:07	10:00	10:42	09:40	09:10
		Suburban	09:41	09:34	09:13	12:17	09:38	08:07
		Rural	12:01	10:37	13:15	12:37	11:17	11:46
		Countywide	08:55	08:22	08:47	09:18	09:27	08:43
Total Response Time	Total Response Time 1st Unit on Scene Distribution	Metropolitan	08:52	09:24	09:28	08:49	08:31	08:34
			15932	n=2030	n=1650	n=4378	n=4240	n=3640
		Urban	10:00	10:28	10:35	09:38	10:09	09:29
			n=1214	n=160	n=118	n=316	n=357	n=264
		Suburban	09:36	10:32	10:15	09:07	09:21	09:41
			n=1877	n=185	n=130	n=530	n=545	n=488
		Rural	11:49	12:55	14:48	11:07	11:21	11:36
			n=1565	n=176	n=128	n=454	n=472	n=337
		Countywide	09:19	09:52	09:58	09:05	09:06	09:02
			20588	n=2552	n=2026	n=5678	n=5614	n=4729
	Total Response Time ERF Concentration	Metropolitan	12:42	12:20	12:35	12:55	12:56	12:56
			n=5575	n=1518	n=1148	n=1103	n=925	n=880
		Urban	14:11	13:50	13:33	14:46	14:45	12:55
			n=424	n=114	n=71	n=84	n=81	n=74
		Suburban	14:00	13:45	13:21	15:32	14:56	12:13
			n=469	n=141	n=83	n=83	n=74	n=88
		Rural	16:24	15:32	17:17	17:04	16:21	15:05
			n=400	n=121	n=78	n=76	n=77	n=48
		Countywide	13:10	12:54	13:10	13:35	13:29	13:03
			n=6868	n=1895	n=1380	n=1346	n=1157	n=1090

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Fire Suppression / Risk Classification: Moderate

BASELINE (ACTUAL) PERFORMANCE STATEMENT

MODERATE RISK FIRE - ADAPTIVE (A2-3)

For moderate-risk adaptive A2-3 incidents, the baseline total response time (TRT) at the 90th percentile for arrival of the first unit is as follows in each of the density zones:

Metropolitan: 08:52 / Urban: 10:00 / Suburban: 09:36 / Rural: 11:49

For phone to dispatch (PtoD) call-processing at the 90th percentile and Countywide: **2:58**

For turnout time at the 90th percentile and Countywide: **02:10**

The travel time for the arrival of the first arriving unit is as follows in each of the density zones:

Metropolitan: 05:10 / Urban: 06:18 / Suburban: 05:51 / Rural: 08:06

The effective response force (ERF) baseline TRT at the 90th percentile is as follows in each of the density zones:

Metropolitan: 12:42 / Urban: 14:11 / Suburban: 14:00 / Rural: 16:24

The first-arriving engine for all fire-related risk levels shall be capable of: Establishing an uninterrupted water supply of a minimum of 500 GPM for 30 minutes with supply line(s) maintained by an operator; Conducting a 360 degree size-up & announcing report; Providing Situation Update Reports; Advancing an attack line which has a minimum flow rate of 150 GPM and operated by a minimum of two members; Locating, confining, and extinguishing fire; Announcing when the line is operating on the fire or if fire's location cannot be quickly determined; Announcing unexpected hazards.

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Fire Suppression / Risk Classification: Moderate

BENCHMARK (TARGET GOAL) PERFORMANCE STATEMENT

MODERATE RISK FIRE-ADAPTIVE (A2-3)

For moderate-risk adaptive A2-3 incidents, the benchmark target goal for total response time (TRT) at the 90th percentile for arrival of the first unit is as follows in each of the density zones:

Metropolitan: 08:30 / Urban: 08:45 / Suburban: 09:30 / Rural: 10:15

For phone to dispatch (PtoD) call-processing at the 90th percentile and Countywide: **2:00**

For turnout time at the 90th percentile and Countywide: **01:30**

The travel time for the arrival of the first-arriving unit is as follows in each of the density zones:

Metropolitan: 05:00 / Urban: 05:15 / Suburban: 06:00 / Rural: 06:45

The effective response force (ERF) benchmark target goal TRT at the 90th percentile is as follows in each of the following density zones:

Metropolitan: 12:30 / Urban: 13:00 / Suburban: 14:15 / Rural: 16:30

The first-arriving engine for all fire-related risk levels shall be capable of: Establishing an uninterrupted water supply of a minimum of 500 GPM for 30 minutes with supply line(s) maintained by an operator; Conducting a 360 degree size-up and announcing report; Providing Situation Update Reports; Advancing an attack line which has a minimum flow rate of 150 GPM and operated by a minimum of two members; Locating, confining, and extinguishing fire; Announcing when the line is operating on the fire or if fire's location cannot be quickly determined; Announcing unexpected hazards.

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Fire Suppression / Risk Classification: High

(High Risk) Fire Suppression – FFA-HY (Hydranted Areas) - 90th Percentile Times - Baseline Performance		FY 2013 - FY 2017	FY 2017	FY 2016	FY 2015	FY 2014	FY 2013	
Alarm Handling Pick-up to Dispatch		Metropolitan	03:18	03:57	03:32	03:05	02:58	02:53
		Urban	03:10	03:43	03:15	03:23	02:38	02:48
		Suburban	03:07	03:20	03:22	02:54	02:45	02:42
		Rural	03:23	03:51	03:53	03:19	02:53	03:21
		Countywide	03:17	03:52	03:31	03:06	02:55	02:52
Turnout Time Turnout Time 1st Unit		Metropolitan	02:12	01:54	02:08	02:12	02:13	02:19
		Urban	02:20	02:01	02:14	02:29	02:21	02:22
		Suburban	02:18	02:21	02:04	02:21	02:16	02:20
		Rural	02:29	02:28	02:45	02:18	02:27	02:35
		Countywide	02:14	02:01	02:10	02:14	02:15	02:20
Travel Time	Travel Time 1st Unit Distribution	Metropolitan	05:31	05:29	05:48	05:46	05:21	05:12
		Urban	06:59	07:04	05:59	07:24	06:58	06:28
		Suburban	06:37	07:27	06:21	06:41	06:39	06:10
		Rural	06:47	07:02	05:42	06:04	07:22	06:25
		Countywide	05:48	05:47	05:53	06:06	05:45	05:26
	Travel Time ERF Concentration	Metropolitan	16:58	15:28	15:09	16:58	19:16	17:47
		Urban	19:01	13:44	16:41	23:25	23:29	19:01
		Suburban	20:55	23:55	16:54	25:01	19:00	19:57
		Rural	17:30	15:14	17:12	1:01:17	17:33	20:44
		Countywide	17:29	15:28	15:36	17:59	19:21	18:28
Total Response Time	Total Response Time 1st Unit on Scene Distribution	Metropolitan	08:55	09:11	09:08	08:51	08:42	08:49
			n=3255	n=422	n=507	n=783	n=748	n=795
		Urban	10:13	10:03	09:21	10:44	11:02	09:22
			n=275	n=35	n=52	n=72	n=55	n=61
		Suburban	10:00	10:43	09:04	10:00	10:29	09:09
			n=288	n=32	n=45	n=77	n=64	n=70
		Rural	09:58	09:48	11:30	09:08	10:27	09:58
			n=224	n=42	n=32	n=58	n=55	n=37
		Countywide	09:11	09:34	09:17	09:09	09:03	08:54
			n=4042	n=531	n=636	n=990	n=922	n=963
	Total Response Time ERF Concentration	Metropolitan	22:13	20:55	21:55	21:43	24:11	24:51
			n=1160	n=149	n=172	n=283	n=271	n=298
		Urban	26:05	20:10	24:01	29:29	34:42	23:28
			n=118	n=16	n=19	n=36	n=25	n=23
		Suburban	27:43	25:10	23:34	28:53	22:39	37:45
			n=117	n=13	n=25	n=36	n=23	n=22
		Rural	24:15	18:49	23:32	1:05:01	21:42	24:15
			n=87	n=20	n=12	n=22	n=23	n=11
		Countywide	23:14	20:55	22:56	25:01	24:53	25:06
			n=1482	n=198	n=228	n=377	n=342	n=354

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Fire Suppression / Risk Classification: High

BASELINE (ACTUAL) PERFORMANCE STATEMENT

HIGH RISK FIRE – FIRE FULL ASSIGNMENT IN HYDRANT AREAS FFA-HY

For high-risk fire full assignments in hydranted risk management zones (box areas), the baseline total response time (TRT) at the 90th percentile for arrival of the first engine is as follows in each of the density zones:

Metropolitan: 08:55 / Urban: 10:13 / Suburban: 10:00 / Rural: 09:58

For phone to dispatch (PtoD) call-processing at the 90th percentile and Countywide: **3:17**

For turnout time at the 90th percentile and Countywide: **02:14**

The travel time for the arrival of the first-arriving engine is as follows in each of the density zones:

Metropolitan: 05:31 / Urban: 06:59 / Suburban: 06:37 / Rural: 06:47

The effective response force (ERF) baseline TRT at the 90th percentile is as follows in each of the density zones:

Metropolitan: 22:13 / Urban: 26:05 / Suburban: 27:43 / Rural: 24:15

The first-arriving engine for all fire-related risk levels shall be capable of: Establishing an uninterrupted water supply of a minimum of 500 GPM for 30 minutes with supply line(s) maintained by an operator; Conducting a 360 degree size-up & announcing report; Providing Situation Update Reports; Advancing an attack line which has a minimum flow rate of 150 GPM and operated by a minimum of two members; Locating, confining, and extinguishing fire; Announcing when the line is operating on the fire or if fire's location cannot be quickly determined; Announcing unexpected hazards.

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Fire Suppression / Risk Classification: High

BENCHMARK (TARGET GOAL) PERFORMANCE STATEMENT

HIGH RISK FIRE – FIRE FULL ASSIGNMENT IN HYDRANT AREAS FFA-HY

For high-risk fire full assignments in hydranted risk management zones (box areas), the benchmark target goal total response time (TRT) at the 90th percentile for arrival of the first engine is in as follows in each of the density zones:

Metropolitan: 07:15 / Urban: 07:45 / Suburban: 08:30 / Rural: 09:45

For phone to dispatch (PtoD) call-processing at the 90th percentile and Countywide: **2:00**

For turnout time at the 90th percentile and Countywide: **01:30**

The travel time for the arrival of the first-arriving engine is as follows in each of the density zones:

Metropolitan: 03:45 / Urban: 04:15 / Suburban: 05:00 / Rural: 06:15

The effective response force (ERF) baseline TRT at the 90th percentile is as follows in each of the density zones:

Metropolitan: 18:00 / Urban: 20:00 / Suburban: 23:00 / Rural: 23:30

The first-arriving engine for all fire-related risk levels shall be capable of: Establishing an uninterrupted water supply of a minimum of 500 GPM for 30 minutes with supply line(s) maintained by an operator; Conducting a 360 degree size-up and announcing report; Providing Situation Update Reports; Advancing an attack line which has a minimum flow rate of 150 GPM and operated by a minimum of two members; Locating, confining, and extinguishing fire; Announcing when the line is operating on the fire or if fire's location cannot be quickly determined; Announcing unexpected hazards.

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Fire Suppression / Risk Classification: Special

(Special Risk) Fire Suppression – FFA-NH (Non-Hydrant Areas) - 90th Percentile Times - Baseline Performance		FY 2013 - FY 2017	FY 2017	FY 2016	FY 2015	FY 2014	FY 2013
Alarm Handling Pick-up to Dispatch	Metropolitan	N/A	N/A	N/A	N/A	N/A	N/A
	Urban	N/A	N/A	N/A	N/A	N/A	N/A
	Suburban	04:39	N/A	04:39	N/A	N/A	N/A
	Rural	03:41	04:23	03:42	03:56	03:27	02:26
	Countywide	03:41	04:23	03:42	03:56	03:27	02:26
Turnout Time Turnout Time 1st Unit	Metropolitan	N/A	N/A	N/A	N/A	N/A	N/A
	Urban	N/A	N/A	N/A	N/A	N/A	N/A
	Suburban	03:03	N/A	3:03	N/A	N/A	N/A
	Rural	03:40	04:02	03:36	03:14	03:45	03:53
	Countywide	03:40	04:02	03:28	03:14	03:45	03:53
Travel Time	Travel Time 1st Unit Distribution	Metropolitan	N/A	N/A	N/A	N/A	N/A
		Urban	N/A	N/A	N/A	N/A	N/A
		Suburban	04:51	N/A	04:51	N/A	N/A
		Rural	09:48	09:53	09:07	11:45	09:31
		Countywide	09:48	09:53	09:07	11:45	09:31
	Travel Time ERF Concentration	Metropolitan	N/A	N/A	N/A	N/A	N/A
		Urban	N/A	N/A	N/A	N/A	N/A
		Suburban	N/A	N/A	N/A	N/A	N/A
		Rural	28:34	1:28:15	21:33	59:49	19:21
		Countywide	28:34	1:28:15	21:33	59:49	19:21
Total Response Time	Total Response Time 1st Unit on Scene Distribution	Metropolitan	N/A	mm:ss	N/A	N/A	N/A
			n=	n=XX	n=	n=	n=
		Urban	N/A	mm:ss	N/A	N/A	N/A
			n=	n=XX	n=	n=	n=
		Suburban	10:21	mm:ss	10:21	N/A	N/A
			n=1	n=XX	n=1	n=	n=
		Rural	14:24	13:43	13:22	15:28	14:04
			n=159	n=24	n=29	n=36	n=40
		Countywide	14:54	13:43	13:20	15:28	14:04
			n=159	n=24	n=30	n=36	n=40
	Total Response Time ERF Concentration	Metropolitan	N/A	N/A	N/A	N/A	N/A
			n=	n=	n=	n=	n=
		Urban	N/A	N/A	N/A	N/A	N/A
			n=	n=	n=	n=	n=
		Suburban	N/A	N/A	N/A	N/A	N/A
			n=	n=	n=	n=	n=
		Rural	47:17	52:00	32:41	1:11:28	54:04
			n=65	n=8	n=15	n=11	n=19
		Countywide	47:17	52:00	32:41	1:11:28	54:04
			n=65	n=8	n=16	n=11	n=19

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Fire Suppression / Risk Classification: Special

BASELINE (ACTUAL) PERFORMANCE STATEMENT

SPECIAL RISK FIRE – FIRE FULL ASSIGNMENT IN NON-HYDRANT AREAS

FFA-NH

For special-risk fire full assignments in non-hydranted risk management zones (box areas), the baseline total response time (TRT) at the 90th percentile for arrival of the first engine is as follows in each of the density zones:

Metropolitan: N/A / Urban: N/A / Suburban: 10:21 / Rural: 14:24

For phone to dispatch (PtoD) call-processing at the 90th percentile and Countywide: **3:41**

For turnout time at the 90th percentile and Countywide: **03:40**

The travel time for the arrival of the first-arriving engine is as follows in each of the density zones:

Metropolitan: N/A / Urban: N/A / Suburban: 04:51 / Rural: 09:48

The effective response force (ERF) baseline TRT at the 90th percentile is as follows in each of the density zones:

Metropolitan: N/A / Urban: N/A / Suburban: N/A / Rural: 47:17

The first-arriving engine for all fire-related risk levels shall be capable of: Establishing an uninterrupted water supply of a minimum of 500 GPM for 30 minutes with supply line(s) maintained by an operator; Conducting a 360 degree size-up and announcing report; Providing Situation Update Reports; Advancing an attack line which has a minimum flow rate of 150 GPM and operated by a minimum of two members; Locating, confining, and extinguishing fire; Announcing when the line is operating on the fire or if fire's location cannot be quickly determined; Announcing unexpected hazards.

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Fire Suppression / Risk Classification: Special

BENCHMARK (TARGET GOAL) PERFORMANCE STATEMENT

SPECIAL RISK FIRE – FIRE FULL ASSIGNMENT IN NON-HYDRANT AREAS

FFA-NH

For special-risk fire full assignments in non-hydranted risk management zones (box areas), the benchmark target goal total response time (TRT) at the 90th percentile for arrival of the first engine is as follows in each of the density zones:

Metropolitan: N/A / Urban: N/A / Suburban: 08:30 / Rural: 11:30

For phone to dispatch (PtoD) call-processing at the 90th percentile and Countywide: **2:00**

For turnout time at the 90th percentile and Countywide: **01:30**

The travel time for the arrival of the first-arriving engine is as follows in each of the density zones:

Metropolitan: N/A / Urban: N/A / Suburban: 05:00 / Rural: 08:00

The effective response force (ERF) baseline TRT at the 90th percentile is as follows in each of the density zones:

Metropolitan: N/A / Urban: N/A / Suburban: 25:00 / Rural: 30:00

The first-arriving engine for all fire-related risk levels shall be capable of: Establishing an uninterrupted water supply of a minimum of 500 GPM for 30 minutes with supply line(s) maintained by an operator; Conducting a 360 degree size-up and announcing report; Providing Situation Update Reports; Advancing an attack line which has a minimum flow rate of 150 GPM and operated by a minimum of two members; Locating, confining, and extinguishing fire; Announcing when the line is operating on the fire or if fire's location cannot be quickly determined; Announcing unexpected hazards.

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Fire Suppression / Risk Classification: Special

(Special Risk) Fire Suppression – FFA-SRHR (High-Rise) - 90th Percentile Times - Baseline Performance		FY 2016 - FY 2017	FY 2017	FY 2016	FY 2015	FY 2014	FY 2013
Alarm Handling Pick-up to Dispatch	Metropolitan	04:35	04:55	03:43	N/A	N/A	N/A
	Urban	N/A	N/A	N/A	N/A	N/A	N/A
	Suburban	02:26	02:26	N/A	N/A	N/A	N/A
	Rural	03:11	N/A	03:11	N/A	N/A	N/A
	Countywide	04:35	04:55	03:42	N/A	N/A	N/A
Turnout Time Turnout Time 1st Unit	Metropolitan	01:49	01:51	01:45	N/A	N/A	N/A
	Urban	N/A	N/A	N/A	N/A	N/A	N/A
	Suburban	02:32	02:32	N/A	N/A	N/A	N/A
	Rural	01:36	N/A	01:36	N/A	N/A	N/A
	Countywide	01:50	02:00	01:45	N/A	N/A	N/A
Travel Time	Travel Time 1st Unit Distribution	Metropolitan	04:24	04:17	04:34	N/A	N/A
		Urban	N/A	N/A	N/A	N/A	N/A
		Suburban	01:20	01:20	N/A	N/A	N/A
		Rural	03:39	N/A	03:39	N/A	N/A
		Countywide	04:24	04:17	04:34	N/A	N/A
	Travel Time ERF Concentration	Metropolitan	15:59	15:59	16:46	N/A	N/A
		Urban	N/A	N/A	N/A	N/A	N/A
		Suburban	N/A	N/A	N/A	N/A	N/A
		Rural	08:16	N/A	08:18	N/A	N/A
		Countywide	15:59	15:59	16:46	N/A	N/A
Total Response Time	Total Response Time 1st Unit on Scene Distribution	Metropolitan	08:46	09:12	08:33	N/A	N/A
			n=124	n=46	n=68	N/A	N/A
		Urban	N/A	N/A	N/A	N/A	N/A
			n=	n=XX	n=	N/A	N/A
		Suburban	06:24	06:24	N/A	N/A	N/A
			n=1	n=1	n=	N/A	N/A
		Rural	07:12	N/A	07:12	N/A	N/A
			n=2	n=XX	n=2	N/A	N/A
		Countywide	08:46	09:12	08:18	N/A	N/A
			n=127	n=47	n=70	N/A	N/A
	Total Response Time ERF Concentration	Metropolitan	21:38	19:28	21:46	N/A	N/A
			n=29	n=9	n=17	N/A	N/A
		Urban	N/A	N/A	N/A	N/A	N/A
			n=	n=	n=	N/A	N/A
		Suburban	N/A	N/A	N/A	N/A	N/A
			n=	n=	n=	N/A	N/A
		Rural	11:34	N/A	11:34	N/A	N/A
			n=1	n=	n=1	N/A	N/A
		Countywide	21:38	19:28	21:46	N/A	N/A
			n=30	n=9	n=18	N/A	N/A

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Fire Suppression / Risk Classification: Special

BASELINE (ACTUAL) PERFORMANCE STATEMENT

SPECIAL RISK FIRE – FIRE FULL ASSIGNMENT HIGH-RISE INCIDENTS

FFA-SRHR

For special-risk fire full assignment high-rise incidents the baseline total response time (TRT) at the 90th percentile for arrival of the first engine is as follows in each of the density zones:

Metropolitan: 08:46 / Urban: N/A / Suburban: 06:24 / Rural: 07:12

For phone to dispatch (PtoD) call-processing at the 90th percentile and Countywide: **4:35**

For turnout time at the 90th percentile and Countywide: **01:50**

The travel time for the arrival of the first-arriving engine is as follows in each of the density zones:

Metropolitan: 04:24 / Urban: N/A / Suburban: 01:20 / Rural: 03:39

The effective response force (ERF) baseline TRT at the 90th percentile is as follows in each of the density zones:

Metropolitan: 21:38 / Urban: N/A / Suburban: N/A / Rural: 11:34

The first-arriving engine for all fire-related risk levels shall be capable of: Establishing an uninterrupted water supply of a minimum of 500 GPM for 30 minutes with supply line(s) maintained by an operator; Conducting a 360 degree size-up and announcing report; Providing Situation Update Reports; Advance attack line which has a minimum flow rate of 150 GPM and operated by a minimum of two members; Locating, confining, and extinguishing fire; Announcing when the line is operating on the fire or if fire's location cannot be quickly determined; Announcing unexpected hazards.

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Fire Suppression / Risk Classification: Special

BENCHMARK (TARGET GOAL) PERFORMANCE STATEMENT

SPECIAL RISK FIRE – FIRE FULL ASSIGNMENT HIGH-RISE INCIDENTS

FFA-SRHR

For special-risk fire full assignment high-rise incidents, the benchmark target goal total response time (TRT) at the 90th percentile for arrival of the first engine is as follows in each of the density zones:

Metropolitan: 07:15 / Urban: 07:45 / Suburban: 08:30 / Rural: 09:45

For phone to dispatch (PtoD) call-processing at the 90th percentile and Countywide: **2:00**

For turnout time at the 90th percentile and Countywide: **01:30**

The travel time for the arrival of the first-arriving engine is as follows in each of the density zones:

Metropolitan: 03:45 / Urban: 04:15 / Suburban: 05:00 / Rural: 06:15

The effective response force (ERF) baseline TRT at the 90th percentile is as follows in each of the density zones:

Metropolitan: 18:00 / Urban: 20:00 / Suburban: 23:00 / Rural: 27:00

The first-arriving engine for all fire-related risk levels shall be capable of: Establishing an uninterrupted water supply of a minimum of 500 GPM for 30 minutes with supply line(s) maintained by an operator; Conducting a 360 degree size-up and announcing report; Providing Situation Update Reports; Advancing an attack line which has a minimum flow rate of 150 GPM and operated by a minimum of two members; Locating, confining, and extinguishing fire; Announcing when the line is operating on the fire or if fire's location cannot be quickly determined; Announcing unexpected hazards.

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: EMS / Risk Classification: Low

(Low Risk) EMS – BLS - 90th Percentile Times - Baseline Performance		FY 2013 - FY 2017	FY 2017	FY 2016	FY 2015	FY 2014	FY 2013	
Alarm Handling Pick-up to Dispatch	Metropolitan	03:39	03:56	03:42	03:34	03:27	03:26	
	Urban	03:48	04:04	03:48	03:47	03:31	03:33	
	Suburban	03:45	04:04	03:51	03:40	03:31	03:33	
	Rural	03:53	04:10	03:56	03:48	03:41	03:42	
	Countywide	03:41	03:58	03:45	03:36	03:28	03:29	
Turnout Time Turnout Time 1st Unit	Metropolitan	01:57	01:50	01:55	01:56	02:00	02:04	
	Urban	01:59	01:54	02:00	01:58	01:57	02:06	
	Suburban	02:00	01:52	02:00	02:02	02:01	02:04	
	Rural	02:03	01:57	02:03	02:04	02:03	02:07	
	Countywide	01:59	01:52	01:57	01:58	02:00	02:05	
Travel Time	Travel Time 1st Unit Distribution	Metropolitan	07:35	07:12	07:26	07:46	07:46	07:44
		Urban	08:19	08:08	08:22	08:27	08:32	08:12
		Suburban	08:01	07:51	07:55	08:15	08:20	07:43
		Rural	09:39	09:19	09:25	09:46	09:58	09:48
		Countywide	07:53	07:33	07:46	08:03	08:05	08:01
	Travel Time ERF Concentration	Metropolitan	08:07	07:52	08:04	08:16	08:14	08:13
		Urban	09:03	08:48	08:58	09:20	09:20	08:58
		Suburban	08:51	08:42	08:46	09:01	09:11	08:37
		Rural	10:38	10:16	10:19	10:52	10:53	10:56
		Countywide	08:30	08:15	08:27	08:38	08:41	08:33
Total Response Time	Total Response Time 1st Unit on Scene Distribution	Metropolitan	11:52	11:42	11:44	12:00	11:58	12:04
			159493	34291	32939	31596	30952	29551
		Urban	12:37	12:42	12:35	12:42	12:35	12:34
			13982	n=3065	n=3028	n=2799	n=2740	n=2337
		Suburban	12:17	12:24	12:17	12:26	12:14	12:01
			18476	n=4001	n=4045	n=3753	n=3483	n=3182
		Rural	13:59	13:46	13:41	14:09	14:11	14:13
			17828	n=3900	n=3717	n=3625	n=3433	n=3143
		Countywide	12:11	12:02	12:03	12:18	12:16	12:18
			209779	45257	43729	41773	40608	38213
	Total Response Time ERF Concentration	Metropolitan	12:30	12:27	12:27	12:34	12:31	12:36
			156163	33879	32128	30909	30231	28879
		Urban	13:35	13:35	13:38	13:38	13:40	13:22
			13312	n=2952	n=2867	n=2652	n=2613	n=2220
		Suburban	13:18	13:21	13:28	13:22	13:19	12:55
			17586	n=3837	n=3836	n=3553	n=3322	n=3024
		Rural	15:03	14:52	14:46	15:08	15:13	15:12
			16579	n=3664	n=3444	n=3373	n=3199	n=2890
		Countywide	12:54	12:51	12:53	12:57	12:56	12:56
			203640	44332	42275	40487	39365	37013

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: EMS / Risk Classification: Low

BASELINE (ACTUAL) PERFORMANCE STATEMENT

LOW RISK EMS – BASIC LIFE SUPPORT - BLS

For low-risk basic life support (BLS) emergency medical services (EMS) incidents, the baseline total response time (TRT) at the 90th percentile for arrival of the first unit (i.e., any fire-rescue unit) is as follows in each of the density zones:

Metropolitan: 11:52 / Urban: 12:37 / Suburban: 12:17 / Rural: 13:59

For phone to dispatch (PtoD) call-processing at the 90th percentile and Countywide: **3:41**

For turnout time at the 90th percentile and Countywide: **01:59**

The travel time for the arrival of the first-arriving unit is as follows in each of the density zones:

Metropolitan: 07:35 / Urban: 08:19 / Suburban: 08:01 / Rural: 09:39

The effective response force (ERF) baseline TRT at the 90th percentile is as follows in each of the density zones:

Metropolitan: 12:30 / Urban: 13:35 / Suburban: 13:18 / Rural: 15:03

The first-arriving unit for all EMS-related risk levels shall be capable of: Size-up; IC; Scene safety; Additional resources if needed, family liaison, manage span-of-control; Assisting with equipment transport (O2, medical bag, AED, etc.), Patient care, ALS support.

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: EMS / Risk Classification: Low

BENCHMARK (TARGET GOAL) PERFORMANCE STATEMENT

LOW RISK EMS – BASIC LIFE SUPPORT - BLS

For low-risk BLS EMS incidents, the benchmark target goal total response time (TRT) at the 90th percentile for arrival of the first unit (i.e., any fire-rescue unit) is as follows in each of the density zones:

Metropolitan: 10:45 / Urban: 11:30 / Suburban: 12:00 / Rural: 13:15

For phone to dispatch (PtoD) call-processing at the 90th percentile and Countywide: **2:00**

For turnout time at the 90th percentile and Countywide: **01:30**

The travel time for the arrival of the first-arriving unit is as follows in each of the density zones:

Metropolitan: 07:15 / Urban: 07:45 / Suburban: 08:30 / Rural: 09:45

The effective response force (ERF) baseline TRT at the 90th percentile is as follows in each of the density zones:

Metropolitan: 12:15 / Urban: 12:45 / Suburban: 13:30 / Rural: 14:15

The first-arriving unit for all EMS-related risk levels shall be capable of Size-up; IC; Scene safety; Additional resources if needed, family liaison, manage span-of-control; Assisting with equipment transport (O2, medical bag, AED, etc.), Patient care, ALS support.

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: EMS / Risk Classification: Moderate

(Moderate Risk) EMS – ALS1 (One Paramedic) - 90th Percentile Times - Baseline Performance		FY 2013 - FY 2017	FY 2017	FY 2016	FY 2015	FY 2014	FY 2013
Alarm Handling Pick-up to Dispatch	Metropolitan	03:22	03:35	03:24	03:18	03:14	03:13
	Urban	03:17	03:29	03:21	03:10	03:10	03:06
	Suburban	03:19	03:34	03:15	03:14	03:11	03:08
	Rural	03:21	03:33	03:25	03:19	03:03	03:09
	Countywide	03:21	03:35	03:23	03:18	03:12	03:11
Turnout Time Turnout Time 1st Unit	Metropolitan	01:59	01:51	01:57	01:58	02:01	02:07
	Urban	02:01	01:55	02:00	02:03	02:01	02:05
	Suburban	02:02	01:55	02:03	02:02	02:05	02:07
	Rural	02:05	01:58	02:03	02:03	02:07	02:13
	Countywide	02:00	01:52	01:58	02:00	02:02	02:07
Travel Time	Travel Time 1st Unit Distribution	Metropolitan	06:41	06:21	06:39	06:48	06:49
		Urban	07:44	07:19	07:44	07:50	07:51
		Suburban	07:43	07:18	07:45	08:02	07:45
		Rural	09:08	08:41	09:02	09:03	09:38
		Countywide	07:07	06:44	07:04	07:14	07:15
	Travel Time ERF Concentration	Metropolitan	07:54	07:29	07:56	07:57	08:05
		Urban	09:03	08:23	08:58	09:00	09:12
		Suburban	08:59	08:34	08:53	09:07	09:03
		Rural	10:57	10:13	10:49	11:07	11:12
		Countywide	08:24	07:55	08:24	08:26	08:34
Total Response Time	Total Response Time 1st Unit on Scene Distribution	Metropolitan	10:45	10:33	10:44	10:46	10:53
			109142	25191	22774	22162	19546
		Urban	11:36	11:22	11:27	11:52	11:30
			n=9487	n=2107	n=1912	n=1953	n=1817
		Suburban	11:43	11:33	11:36	11:55	11:58
			11588	n=2626	n=2405	n=2398	n=2148
		Rural	13:02	12:44	13:02	12:53	13:14
			11673	n=2693	n=2551	n=2325	n=2119
		Countywide	11:07	10:54	11:05	11:10	11:15
			141890	32617	29642	28838	25260
	Total Response Time ERF Concentration	Metropolitan	12:09	11:52	12:11	12:05	12:16
			88127	18432	18599	18870	16148
		Urban	13:13	12:48	13:08	13:05	13:31
			n=7791	n=1560	n=1586	n=1664	n=1548
		Suburban	13:14	12:56	13:00	13:22	13:27
			n=9602	n=1989	n=2016	n=2033	n=1844
		Rural	15:06	14:20	15:12	15:05	15:38
			n=9477	n=2000	n=2148	n=1991	n=1731
		Countywide	12:37	12:16	12:37	12:35	12:50
			114997	23980	24349	24558	21271

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: EMS / Risk Classification: Moderate

BASELINE (ACTUAL) PERFORMANCE STATEMENT

MODERATE RISK EMS – ADVANCED LIFE SUPPORT-1 – ALS1

For moderate-risk Advanced Life Support-1 (ALS1) EMS incidents, the baseline total response time (TRT) at the 90th percentile for first arrival of any paramedic unit is as follows in each of the density zones:

Metropolitan: 10:45 / Urban: 11:36 / Suburban: 11:43 / Rural: 13:02

For phone to dispatch (PtoD) call-processing at the 90th percentile and Countywide: **3:21**

For turnout time at the 90th percentile and Countywide: **02:00**

The travel time for the arrival of the first paramedic unit is as follows in each of the density zones:

Metropolitan: 06:41 / Urban: 07:44 / Suburban: 07:43 / Rural: 09:08

The effective response force (ERF) baseline TRT at the 90th percentile is as follows in each of the density zones:

Metropolitan: 12:09 / Urban: 13:13 / Suburban: 13:14 / Rural: 15:06

The first-arriving unit for all EMS-related risk levels shall be capable of Size-up; IC; Scene safety; Additional resources if needed, family liaison, manage span-of-control; Assisting with equipment transport (O2, medical bag, AED, etc.), Patient care, ALS support.

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: EMS / Risk Classification: Moderate

BENCHMARK (TARGET GOAL) PERFORMANCE STATEMENT

MODERATE RISK EMS – ADVANCED LIFE SUPPORT-1 – ALS1

For moderate-risk ALS1 EMS incidents, the benchmark target goal total response time (TRT) at the 90th percentile for first arrival of any paramedic unit is as follows in each of the density zones:

Metropolitan: 09:30 / Urban: 10:15 / Suburban: 11:00 / Rural: 12:00

For phone to dispatch (PtoD) call-processing at the 90th percentile and Countywide: **2:00**

For turnout time at the 90th percentile and Countywide: **01:30**

The travel time for the arrival of the first paramedic unit is as follows in each of the density zones:

Metropolitan: 06:00 / Urban: 06:45 / Suburban: 07:30 / Rural: 08:30

The effective response force (ERF) baseline TRT at the 90th percentile is as follows in each of the density zones:

Metropolitan: 11:45 / Urban: 12:15 / Suburban: 13:00 / Rural: 14:00

The first-arriving unit for all EMS-related risk levels shall be capable of Size-up; IC; Scene safety; Additional resources if needed, family liaison, manage span-of-control; Assisting with equipment transport (O2, medical bag, AED, etc.), Patient care, ALS support.

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: EMS / Risk Classification: High

(High Risk) EMS – ALS2 (Two Paramedics) - 90th Percentile Times - Baseline Performance		FY 2013 - FY 2017	FY 2017	FY 2016	FY 2015	FY 2014	FY 2013
Alarm Handling Pick-up to Dispatch	Metropolitan	03:01	03:17	03:03	02:59	02:54	02:54
	Urban	03:01	03:05	03:08	03:02	02:49	02:51
	Suburban	02:57	03:14	02:55	02:56	03:00	02:44
	Rural	03:00	03:25	02:59	02:51	02:49	03:01
	Countywide	03:01	03:16	03:02	02:59	02:53	02:54
Turnout Time Turnout Time 1st Unit	Metropolitan	01:59	01:52	01:56	02:00	01:59	02:09
	Urban	02:01	01:55	02:02	02:02	01:58	02:08
	Suburban	02:00	01:50	01:57	02:03	02:01	02:09
	Rural	02:03	01:59	02:01	02:02	01:59	02:09
	Countywide	02:00	01:52	01:57	02:00	01:59	02:09
Travel Time	Travel Time 1st Unit Distribution	Metropolitan	06:07	06:00	05:59	06:10	06:12
		Urban	06:53	06:28	06:42	07:13	07:11
		Suburban	07:02	06:47	06:53	07:07	07:30
		Rural	08:41	08:27	08:23	08:32	09:05
		Countywide	06:32	06:20	06:24	06:38	06:43
	Travel Time ERF Concentration	Metropolitan	07:52	07:53	07:39	07:53	08:02
		Urban	09:06	08:19	09:27	09:27	08:47
		Suburban	08:44	08:43	08:09	08:44	09:09
		Rural	11:04	11:35	10:20	11:14	11:08
		Countywide	08:27	08:27	08:09	08:30	08:42
Total Response Time	Total Response Time 1st Unit on Scene Distribution	Metropolitan	09:54	09:55	09:45	09:52	10:00
			19486	n=3684	n=4292	n=4013	n=3766
		Urban	10:25	10:11	10:18	10:50	10:16
			n=1836	n=340	n=425	n=386	n=328
		Suburban	10:44	10:38	10:44	10:42	10:44
			n=1894	n=365	n=414	n=378	n=381
		Rural	12:17	12:49	11:51	12:02	12:18
			n=2060	n=394	n=462	n=427	n=385
		Countywide	10:14	10:14	10:06	10:10	10:17
			25276	n=4783	n=5593	n=5204	n=4860
	Total Response Time ERF <u>Concentration</u>	Metropolitan	11:52	12:14	11:41	11:44	11:59
			10875	n=1903	n=2662	n=2637	n=1823
		Urban	12:58	12:09	12:59	13:44	12:51
			n=1152	n=187	n=306	n=291	n=177
		Suburban	12:35	12:46	12:00	12:36	13:45
			n=1097	n=205	n=254	n=269	n=186
		Rural	14:48	16:42	13:53	15:21	14:06
			n=1234	n=219	n=310	n=312	n=188
		Countywide	12:21	12:39	12:05	12:25	12:24
			14358	n=2514	n=3532	n=3509	n=2374

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: EMS / Risk Classification: High

BASELINE (ACTUAL) PERFORMANCE STATEMENT

HIGH RISK EMS – ADVANCED LIFE SUPPORT-2 – ALS2

For high-risk ALS2 EMS incidents, the baseline total response time (TRT) at the 90th percentile for first arrival of any paramedic unit is as follows in each of the density zones:

Metropolitan: 09:54 / Urban: 10:25 / Suburban: 10:44 / Rural: 12:17

For phone to dispatch (PtoD) call-processing at the 90th percentile and Countywide: **3:01**

For turnout time at the 90th percentile and Countywide: **02:00**

The travel time for the arrival of the first paramedic unit is as follows in each of the density zones:

Metropolitan: 06:07 / Urban: 06:53 / Suburban: 07:02 / Rural: 08:41

The effective response force (ERF) baseline TRT at the 90th percentile is as follows in each of the following density zones:

Metropolitan: 11:52 / Urban: 12:58 / Suburban: 12:35 / Rural: 14:48

The first-arriving unit for all EMS-related risk levels shall be capable of Size-up; IC; Scene safety; Additional resources if needed, family liaison, manage span-of-control; Assisting with equipment transport (O2, medical bag, AED, etc.), Patient care, ALS support.

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: EMS / Risk Classification: High

BENCHMARK (TARGET GOAL) PERFORMANCE STATEMENT

HIGH RISK EMS – ADVANCED LIFE SUPPORT-2 – ALS2

For high-risk ALS2 EMS incidents, the benchmark target goal total response time (TRT) at the 90th percentile for first arrival of any paramedic unit is as follows in each of the density zones:

Metropolitan: 09:30 / Urban: 10:15 / Suburban: 11:00 / Rural: 12:00

For phone to dispatch (PtoD) call-processing at the 90th percentile and Countywide: **2:00**

For turnout time at the 90th percentile and Countywide: **01:30**

The travel time for the arrival of the first paramedic unit is as follows in each of the density zones:

Metropolitan: 06:00 / Urban: 06:45 / Suburban: 07:30 / Rural: 08:30

The effective response force (ERF) baseline TRT at the 90th percentile is as follows in each of the density zones:

Metropolitan: 11:30 / Urban: 11:45 / Suburban: 12:30 / Rural: 13:30

The first-arriving unit for all EMS-related risk levels shall be capable of Size-up; IC; Scene safety; Additional resources if needed, family liaison, manage span-of-control; Assisting with equipment transport (O2, medical bag, AED, etc.), Patient care, ALS support.

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Hazmat / Risk Classification: Moderate

(Moderate Risk) Hazmat – HM-MR - 90th Percentile Times - Baseline Performance		FY 2013 - FY 2017	FY 2017	FY 2016	FY 2015	FY 2014	FY 2013	
Alarm Handling Pick-up to Dispatch		Metropolitan	06:36	06:36	06:38	06:57	06:09	04:51
		Urban	04:58	05:44	04:02	03:56	04:20	03:09
		Suburban	06:32	07:09	07:54	05:13	04:00	03:43
		Rural	05:26	12:20	04:15	06:00	05:26	05:09
		Countywide	06:03	06:36	05:54	06:00	05:26	05:05
Turnout Time Turnout Time 1st Unit		Metropolitan	02:42	02:28	02:45	03:04	03:26	02:40
		Urban	02:32	02:25	02:31	02:32	03:18	02:03
		Suburban	02:50	03:51	02:29	02:48	03:23	02:02
		Rural	03:03	04:14	02:54	02:41	06:51	03:12
		Countywide	02:45	02:30	02:46	03:01	03:26	02:53
Travel Time	Travel Time 1st Unit Distribution	Metropolitan	04:56	05:04	04:46	04:51	05:11	04:56
		Urban	07:31	07:16	05:42	07:32	09:02	04:32
		Suburban	05:23	06:35	05:23	05:27	04:58	01:40
		Rural	07:08	09:47	04:55	09:00	05:30	05:40
		Countywide	05:30	05:30	05:23	05:49	06:06	05:32
	Travel Time ERF Concentration	Metropolitan	20:08	16:04	18:48	23:26	16:26	20:27
		Urban	23:19	13:30	17:26	23:19	19:11	N/A
		Suburban	22:38	N/A	N/A	16:56	22:38	N/A
		Rural	39:03	N/A	N/A	39:03	16:07	27:50
		Countywide	22:38	16:04	18:48	29:34	19:11	27:50
Total Response Time	Total Response Time 1st Unit on Scene Distribution	Metropolitan	11:43	12:06	11:54	11:01	11:37	09:08
			n=198	n=77	n=74	n=28	n=6	n=13
		Urban	13:21	13:34	10:24	12:47	14:07	09:02
			n=24	n=8	n=11	n=3	n=1	n=1
		Suburban	13:11	15:15	13:11	11:00	08:12	07:05
			n=19	n=3	n=8	n=4	n=3	n=1
		Rural	16:33	17:36	09:43	16:33	11:50	11:31
			n=18	n=5	n=2	n=6	n=3	n=2
		Countywide	12:06	12:32	12:03	11:01	11:50	11:31
			n=259	n=93	n=95	n=41	n=13	n=17
	Total Response Time ERF Concentration	Metropolitan	28:41	27:16	24:34	31:18	23:39	28:30
			n=74	n=23	n=25	n=14	n=4	n=8
		Urban	32:02	27:47	22:10	32:02	N/A	N/A
			n=4	n=2	n=1	n=1	n=	n=
		Suburban	31:30	N/A	N/A	25:24	31:30	N/A
			n=4	n=	n=	n=2	n=2	n=
		Rural	47:48	N/A	N/A	47:48	25:51	36:11
			n=6	n=	n=	n=3	n=2	n=1
		Countywide	30:57	27:47	24:34	36:16	31:30	36:11
			n=88	n=25	n=26	n=20	n=8	n=9

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Hazmat / Risk Classification: Moderate

BASELINE (ACTUAL) PERFORMANCE STATEMENT

MODERATE RISK HAZARDOUS MATERIALS– HM-MR

For moderate-risk hazmat incidents, the baseline total response time (TRT) at the 90th percentile for first arrival of the applicable unit is as follows in each of the density zones:

Metropolitan: 11:43 / Urban: 13:21 / Suburban: 13:11 / Rural: 16:33

For phone to dispatch (PtoD) call-processing at the 90th percentile and Countywide: **6:03**

For turnout time at the 90th percentile and Countywide: **02:45**

The travel time for the arrival of the first applicable unit is as follows in each of the density zones:

Metropolitan: 04:56 / Urban: 07:31 / Suburban: 05:23 / Rural: 07:08

The effective response force (ERF) baseline TRT at the 90th percentile is as follows in each of the density zones:

Metropolitan: 28:41 / Urban: 32:02 / Suburban: 31:30 / Rural: 47:48

The first-arriving unit for all hazmat-related risk levels shall: Provide Initial On-Scene Report (IOSR); If an engine and applicable, establish uninterrupted water supply of a minimum of 500 GPM for 30 minutes with supply line(s) maintained by an operator; Stage 500' away and, if an engine, ensure the last water supply is not passed; Secure perimeter and deny entry; Locate supervisor, calling party, or competent person; If an engine, prepare to establish emergency gross decon; Provide Situation Update Reports.

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Hazmat / Risk Classification: Moderate

BENCHMARK (TARGET GOAL) PERFORMANCE STATEMENT

MODERATE RISK HAZARDOUS MATERIALS– HM-MR

For moderate-risk hazmat incidents the benchmark target goal total response time (TRT) at the 90th percentile for first arrival of the applicable unit is as follows in each of the density zones:

Metropolitan: 11:30 / Urban: 11:45 / Suburban: 12:30 / Rural: 13:45

For phone to dispatch (PtoD) call-processing at the 90th percentile and Countywide:
03:00

For turnout time at the 90th percentile and Countywide: **01:30**

The travel time for the arrival of the first applicable unit is as follows in each of the density zones:

Metropolitan: 06:45 / Urban: 07:15 / Suburban: 08:00 / Rural: 09:15

The effective response force (ERF) baseline TRT at the 90th percentile is as follows in each of the density zones:

Metropolitan: 20:00 / Urban: 22:00 / Suburban: 26:00 / Rural: 30:00

The first-arriving unit for all hazmat-related risk levels shall: Provide Initial On-Scene Report (IOSR); If an engine and applicable, establish uninterrupted water supply of a minimum of 500 GPM for 30 minutes with supply line(s) maintained by an operator; Stage 500' away and, if an engine, ensure the last water supply is not passed; Secure perimeter and deny entry; Locate supervisor, calling party, or competent person; If an engine, prepare to establish emergency gross decon; Provide Situation Update Reports.

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Hazmat / Risk Classification: High

(High Risk) Hazmat – HM-HR - 90th Percentile Times - Baseline Performance		FY 2013 - FY 2017	FY 2017	FY 2016	FY 2015	FY 2014	FY 2013
Alarm Handling Pick-up to Dispatch	Metropolitan	06:01	06:24	08:04	05:16	06:11	06:10
	Urban	05:30	N/A	03:42	05:21	11:49	06:07
	Suburban	05:51	02:24	04:34	10:32	05:51	05:31
	Rural	06:21	06:58	07:14	05:15	05:32	06:33
	Countywide	06:01	06:24	07:14	05:21	05:55	06:07
Turnout Time Turnout Time 1st Unit	Metropolitan	03:01	02:58	02:36	02:56	03:01	03:21
	Urban	02:49	N/A	03:13	03:04	02:37	02:47
	Suburban	03:08	01:44	03:21	03:40	03:03	02:46
	Rural	03:17	03:52	02:59	03:18	03:07	02:51
	Countywide	03:01	03:02	03:01	03:01	02:59	03:04
Travel Time	Travel Time 1st Unit Distribution	Metropolitan	04:57	05:34	04:16	05:05	04:36
		Urban	05:46	N/A	04:26	07:59	05:06
		Suburban	06:25	04:46	03:00	07:13	05:06
		Rural	06:23	07:02	06:16	06:11	06:23
		Countywide	05:25	05:34	05:28	06:11	05:01
	Travel Time ERF Concentration	Metropolitan	20:17	21:17	21:30	14:09	23:58
		Urban	23:48	N/A	09:10	19:42	21:39
		Suburban	14:44	12:18	12:17	14:44	09:54
		Rural	35:06	N/A	26:50	2:03:25	19:47
		Countywide	22:38	21:17	21:30	17:41	21:39
Total Response Time	Total Response Time 1st Unit on Scene Distribution	Metropolitan	11:38	11:46	14:01	11:16	11:38
			n=232	n=17	n=15	n=64	n=67
		Urban	12:33	N/A	09:05	12:35	15:46
			n=20	n=XX	n=3	n=4	n=8
		Suburban	11:35	08:15	08:57	18:02	11:35
			n=28	n=1	n=2	n=8	n=10
		Rural	11:40	15:59	13:54	11:40	10:50
			n=32	n=2	n=7	n=10	n=7
		Countywide	11:40	11:46	13:54	11:40	11:34
			n=312	n=20	n=27	n=86	n=94
	Total Response Time ERF <u>Concentration</u>	Metropolitan	31:45	35:08	33:21	25:00	33:33
			n=74	n=4	n=5	n=22	n=27
		Urban	33:49	N/A	14:19	27:06	25:38
			n=5	n=	n=1	n=2	n=1
		Suburban	20:43	16:14	18:58	20:43	16:57
			n=10	n=1	n=2	n=3	n=2
		Rural	40:35	N/A	35:02	2:09:26	28:09
			n=11	n=	n=2	n=6	n=1
		Countywide	33:21	35:08	33:21	27:51	32:04
			n=100	n=5	n=10	n=33	n=31

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Hazmat / Risk Classification: High

BASELINE (ACTUAL) PERFORMANCE STATEMENT

HIGH RISK HAZARDOUS MATERIALS– HM-HR

For high-risk hazmat incidents the baseline total response time (TRT) at the 90th percentile for first arrival of the applicable unit is as follows in each of the density zones:

Metropolitan: 11:38 / Urban: 12:33 / Suburban: 13:35 / Rural: 11:40

For phone to dispatch (PtoD) call-processing at the 90th percentile and Countywide: **6:01**

For turnout time at the 90th percentile and Countywide: **03:01**

The travel time for the arrival of the first applicable unit is as follows in each of the density zones:

Metropolitan: 04:57 / Urban: 05:46 / Suburban: 06:25 / Rural: 06:23

The effective response force (ERF) baseline TRT at the 90th percentile is as follows in each of the density zones:

Metropolitan: 31:45 / Urban: 33:49 / Suburban: 20:43 / Rural: 40:35

The first-arriving unit for all hazmat-related risk levels shall: Provide Initial On-Scene Report (IOSR); If an engine and applicable, establish uninterrupted water supply of a minimum of 500 GPM for 30 minutes with supply line(s) maintained by an operator; Stage 500' away and, if an engine, ensure the last water supply is not passed; Secure perimeter and deny entry; Locate supervisor, calling party, or competent person; If an engine, prepare to establish emergency gross decon; Provide Situation Update Reports.

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Hazmat / Risk Classification: High

BENCHMARK (TARGET GOAL) PERFORMANCE STATEMENT

HIGH RISK HAZARDOUS MATERIALS– HM-HR

For high-risk hazmat incidents, the benchmark target goal total response time (TRT) at the 90th percentile for first arrival of the applicable unit is as follows in each of the density zones:

Metropolitan: 11:30 / Urban: 11:45 / Suburban: 12:30 / Rural: 13:45

For phone to dispatch (PtoD) call-processing at the 90th percentile and Countywide: **3:00**

For turnout time at the 90th percentile and Countywide: **01:30**

The travel time for the arrival of the first applicable unit is as follows in each of the density zones:

Metropolitan: 06:45 / Urban: 07:15 / Suburban: 08:00 / Rural: 09:15

The effective response force (ERF) baseline TRT at the 90th percentile is as follows in each of the following density zones:

Metropolitan: 22:00 / Urban: 24:00 / Suburban: 28:00 / Rural: 33:00

The first-arriving unit for all hazmat-related risk levels shall: Provide Initial On-Scene Report (IOSR); If an engine and applicable, establish uninterrupted water supply of a minimum of 500 GPM for 30 minutes with supply line(s) maintained by an operator; Stage 500' away and, if an engine, ensure the last water supply is not passed; Secure perimeter and deny entry; Locate supervisor, calling party, or competent person; If an engine, prepare to establish emergency gross decon; Provide Situation Update Reports.

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Hazmat / Risk Classification: Special

(Special Risk) Hazmat – HM-SR - 90th Percentile Times - Baseline Performance		FY 2013 - FY 2017	FY 2017	FY 2016	FY 2015	FY 2014	FY 2013
Alarm Handling Pick-up to Dispatch	Metropolitan	04:23	03:57	03:46	04:15	04:45	05:06
	Urban	04:16	03:11	04:16	04:25	04:42	03:18
	Suburban	03:29	02:56	03:21	02:35	04:38	03:29
	Rural	04:42	04:54	06:00	03:20	05:01	04:00
	Countywide	04:27	04:17	04:16	04:16	04:45	04:09
Turnout Time Turnout Time 1st Unit	Metropolitan	02:59	02:46	03:24	02:48	03:10	03:21
	Urban	02:51	02:16	03:10	03:11	02:51	02:20
	Suburban	02:59	02:47	03:25	03:02	02:38	03:25
	Rural	03:08	03:33	02:41	03:04	03:03	03:57
	Countywide	03:02	02:51	03:11	02:53	03:03	03:24
Travel Time	Travel Time 1st Unit Distribution	Metropolitan	06:10	05:49	08:55	04:45	06:10
		Urban	07:02	06:47	06:17	07:02	10:38
		Suburban	06:44	06:04	07:30	00:42	06:44
		Rural	06:30	05:53	05:45	05:00	11:00
		Countywide	06:41	06:04	06:17	05:00	07:18
	Travel Time ERF Concentration	Metropolitan	25:30	18:34	24:19	40:17	25:38
		Urban	25:40	18:00	27:28	21:18	N/A
		Suburban	1:21:31	16:47	48:39	N/A	1:21:31
		Rural	31:08	18:06	24:35	40:32	31:08
		Countywide	27:28	18:06	25:59	40:17	31:08
Total Response Time	Total Response Time 1st Unit on Scene Distribution	Metropolitan	10:30	09:17	10:30	08:27	10:44
			n=144	n=26	n=18	n=44	n=38
		Urban	11:57	11:57	11:45	11:48	16:09
			n=20	n=3	n=5	n=7	n=3
		Suburban	12:08	10:21	12:08	05:41	12:10
			n=19	n=2	n=6	n=1	n=7
		Rural	13:10	13:42	14:46	10:42	15:24
			n=31	n=5	n=7	n=5	n=7
		Countywide	11:31	11:57	11:45	08:45	12:10
			n=214	n=36	n=36	n=57	n=55
	Total Response Time ERF Concentration	Metropolitan	47:28	22:43	23:21	1:11:02	58:23
			n=65	n=8	n=3	n=23	n=19
		Urban	35:43	N/A	34:21	35:43	N/A
			n=11	n=	n=3	n=6	n=
		Suburban	1:31:38	22:30	30:28	N/A	1:31:38
			n=6	n=1	n=1	n=	n=3
		Rural	1:31:43	23:53	28:41	14:58	1:00:34
			n=15	n=1	n=2	n=1	n=5
		Countywide	59:18	23:53	34:21	47:28	1:00:34
			n=97	n=10	n=9	n=30	n=27

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Hazmat / Risk Classification: Special

BASELINE (ACTUAL) PERFORMANCE STATEMENT

SPECIAL RISK HAZARDOUS MATERIALS– HM-SR

For special-risk hazmat incidents, the baseline total response time (TRT) at the 90th percentile for first arrival of the applicable unit is as follows in each of the density zones:

Metropolitan: 10:30 / Urban: 11:57 / Suburban: 12:08 / Rural: 13:10

For phone to dispatch (PtoD) call-processing at the 90th percentile and Countywide: **4:27**

For turnout time at the 90th percentile and Countywide: **03:02**

The travel time for the arrival of the first applicable unit is as follows in each of the density zones:

Metropolitan: 06:10 / Urban: 07:02 / Suburban: 06:44 / Rural: 06:30

The effective response force (ERF) baseline TRT at the 90th percentile is as follows in each of the density zones:

Metropolitan: 55:45 / Urban: 35:43 / Suburban: 1:31:38 / Rural: 1:31:43

The first-arriving unit for all hazmat-related risk levels shall: Provide Initial On-Scene Report (IOSR); If an engine and applicable, establish uninterrupted water supply of a minimum of 500 GPM for 30 minutes with supply line(s) maintained by an operator; Stage 500' away and, if an engine, ensure the last water supply is not passed; Secure perimeter and deny entry; Locate supervisor, calling party, or competent person; If an engine, prepare to establish emergency gross decon; Provide Situation Update Reports.

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Hazmat / Risk Classification: Special

BENCHMARK (TARGET GOAL) PERFORMANCE STATEMENT

SPECIAL RISK HAZARDOUS MATERIALS– HM-SR

For special-risk hazmat incidents, the benchmark target goal total response time (TRT) at the 90th percentile for first arrival of the applicable unit is as follows in each of the density zones:

Metropolitan: 11:30 / Urban: 11:45 / Suburban: 12:30 / Rural: 13:45

For phone to dispatch (PtoD) call-processing at the 90th percentile and Countywide: **3:00**

For turnout time at the 90th percentile and Countywide: **01:30**

The travel time for the arrival of the first applicable unit is as follows in each of the density zones:

Metropolitan: 06:45 / Urban: 07:15 / Suburban: 08:00 / Rural: 09:15

The effective response force (ERF) baseline TRT at the 90th percentile is as follows in each of the density zones:

Metropolitan: 24:00 / Urban: 26:00 / Suburban: 30:00 / Rural: 36:00

The first-arriving unit for all hazmat-related risk levels shall: Provide Initial On-Scene Report (IOSR); If an engine and applicable, establish uninterrupted water supply of a minimum of 500 GPM for 30 minutes with supply line(s) maintained by an operator; Stage 500' away and, if an engine, ensure the last water supply is not passed; Secure perimeter and deny entry; Locate supervisor, calling party, or competent person; If an engine, prepare to establish emergency gross decon; Provide Situation Update Reports.

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Technical Rescue / Risk Classification: Special

(Special Risk) Technical Rescue – TR-SR - 90th Percentile Times - Baseline Performance		FY 2013 - FY 2017	FY 2017	FY 2016	FY 2015	FY 2014	FY 2013	
Alarm Handling Pick-up to Dispatch		Metropolitan	06:20	06:20	04:12	07:53	05:12	06:19
		Urban	N/A	N/A	N/A	N/A	N/A	N/A
		Suburban	09:30	09:30	N/A	03:21	N/A	02:12
		Rural	06:46	07:52	03:44	04:29	06:46	06:03
		Countywide	06:46	07:52	04:12	07:53	06:46	06:19
Turnout Time Turnout Time 1st Unit		Metropolitan	04:59	03:51	04:36	05:59	05:35	05:01
		Urban	N/A	N/A	N/A	N/A	N/A	N/A
		Suburban	06:51	02:32	N/A	09:09	N/A	05:34
		Rural	04:49	03:27	06:50	10:48	03:58	01:59
		Countywide	05:01	03:51	05:20	06:22	05:13	05:01
Travel Time	Travel Time 1st Unit Distribution	Metropolitan	03:46	03:38	06:11	06:50	03:00	02:43
		Urban	N/A	N/A	N/A	N/A	N/A	N/A
		Suburban	07:03	07:03	N/A	03:43	N/A	00:52
		Rural	07:45	07:45	06:46	14:23	05:02	04:25
		Countywide	06:46	07:03	06:46	06:50	05:02	04:25
	Travel Time ERF Concentration	Metropolitan	32:08	09:35	23:00	25:35	32:08	21:38
		Urban	N/A	N/A	N/A	N/A	N/A	N/A
		Suburban	15:46	15:46	N/A	N/A	N/A	N/A
		Rural	12:43	05:33	12:43	10:22	04:35	N/A
		Countywide	25:35	15:46	23:00	25:35	32:08	21:38
Total Response Time	Total Response Time 1st Unit on Scene Distribution	Metropolitan	10:00	08:53	09:52	15:29	08:43	10:00
			n=28	n=6	n=6	n=9	n=4	n=3
		Urban	N/A	N/A	N/A	N/A	N/A	N/A
			n=	n=XX	n=	n=	n=	n=
		Suburban	17:48	17:48	N/A	07:27	N/A	03:34
			n=3	n=1	n=	n=1	n=	n=1
		Rural	15:57	15:57	12:11	19:48	10:34	08:26
			n=12	n=3	n=2	n=2	n=2	n=3
		Countywide	13:10	15:57	12:11	15:29	10:34	10:00
			n=43	n=10	n=8	n=12	n=6	n=7
	Total Response Time ERF Concentration	Metropolitan	1:55:20	N/A	41:55	1:55:20	42:41	32:21
			n=7	n=	n=2	n=3	n=1	n=1
		Urban	N/A	N/A	N/A	N/A	N/A	N/A
			n=	n=	n=	n=	n=	n=
		Suburban	27:48	27:48	N/A	N/A	N/A	N/A
			n=1	n=1	n=	n=	n=	n=
		Rural	32:52	17:59	18:42	32:52	N/A	N/A
			n=3	n=1	n=1	n=1	n=	n=
		Countywide	42:41	27:48	41:55	1:55:20	42:41	32:21
			n=11	n=2	n=3	n=4	n=1	n=1

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Technical Rescue / Risk Classification: Special

BASELINE (ACTUAL) PERFORMANCE STATEMENT

SPECIAL RISK TECHNICAL RESCUE– TR-SR

For special-risk technical rescue incidents, the baseline total response time (TRT) at the 90th percentile for first arrival of the applicable unit is as follows in each of the density zones:

Metropolitan: 10:00 / Urban: N/A / Suburban: 17:48 / Rural: 15:57

For phone to dispatch (PtoD) call-processing at the 90th percentile and Countywide: **6:46**

For turnout time at the 90th percentile and Countywide: **05:01**

The travel time for the arrival of the first applicable unit is as follows in each of the density zones:

Metropolitan: 03:46 / Urban: N/A / Suburban: 07:03 / Rural: 07:45

The effective response force (ERF) baseline TRT at the 90th percentile is as follows in each of the density zones:

Metropolitan: 1:55:20 / Urban: N/A / Suburban: 27:48 / Rural: 32:52

The first-arriving unit for all technical rescue-related risk shall: Provide Initial On-Scene Report (IOSR); if an engine, establish uninterrupted water supply with supply line(s) maintained by an operator; Position at least 250' away from area; Eliminate sources of vibration; Provide fire suppression capabilities if required; Secure perimeter and deny entry; Locate supervisor, calling party, or competent person; Provide Situation Update Reports.

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Technical Rescue / Risk Classification: Special

BENCHMARK (TARGET GOAL) PERFORMANCE STATEMENT

SPECIAL RISK TECHNICAL RESCUE– TR-SR

For special-risk technical rescue incidents, the benchmark target goal total response time (TRT) at the 90th percentile for first arrival of the applicable unit is as follows in each of the density zones:

Metropolitan: 11:30 / Urban: 11:45 / Suburban: 12:30 / Rural: 13:45

For phone to dispatch (PtoD) call-processing at the 90th percentile and Countywide: **3:00**

For turnout time at the 90th percentile and Countywide: **01:30**

The travel time for the arrival of the first applicable unit is as follows in each of the density zones:

Metropolitan: 06:45 / Urban: 07:15 / Suburban: 08:00 / Rural: 09:15

The effective response force (ERF) baseline TRT at the 90th percentile is as follows in each of the density zones:

Metropolitan: 24:00 / Urban: 26:00 / Suburban: 30:00 / Rural: 36:00

The first-arriving unit for all technical rescue-related risk shall: Provide Initial On-Scene Report (IOSR); if an engine, establish uninterrupted water supply with supply line(s) maintained by an operator; Position at least 250' away from area; Eliminate sources of vibration; Provide fire suppression capabilities if required; Secure perimeter and deny entry; Locate supervisor, calling party, or competent person; Provide Situation Update Reports.

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Water-Ice Rescue / Risk Classification: Moderate

(Moderate Risk) Water/Ice Rescue – WIR-MR - 90th Percentile Times - Baseline Performance		FY 2013 - FY 2017	FY 2017	FY 2016	FY 2015	FY 2014	FY 2013	
Alarm Handling Pick-up to Dispatch		Metropolitan	05:12	05:12	08:12	05:09	05:04	08:13
		Urban	03:35	03:14	N/A	03:17	03:35	03:46
		Suburban	07:51	04:29	06:53	02:55	09:04	03:24
		Rural	04:36	07:49	05:17	03:27	03:54	04:10
		Countywide	05:13	05:12	06:53	05:01	05:17	04:10
Turnout Time Turnout Time 1st Unit		Metropolitan	04:24	06:06	04:25	03:38	04:59	04:12
		Urban	03:57	02:24	N/A	03:17	05:12	04:20
		Suburban	04:51	01:53	02:16	04:12	04:15	05:38
		Rural	04:46	03:39	05:04	03:44	04:49	05:25
		Countywide	04:38	03:43	04:38	03:47	04:50	05:17
Travel Time	Travel Time 1st Unit Distribution	Metropolitan	05:08	05:08	09:46	03:57	05:35	04:00
		Urban	08:59	06:55	N/A	12:01	08:22	08:59
		Suburban	07:09	03:34	07:09	00:07	10:05	03:08
		Rural	10:00	11:37	09:20	06:37	15:05	09:29
		Countywide	09:13	11:37	09:20	06:31	09:04	09:13
	Travel Time ERF Concentration	Metropolitan	37:50	10:36	11:53	37:50	16:59	10:41
		Urban	33:11	33:11	N/A	N/A	13:54	21:55
		Suburban	11:15	N/A	09:46	N/A	11:15	07:34
		Rural	22:38	26:52	N/A	26:16	17:41	22:38
		Countywide	26:16	33:11	11:53	37:50	16:59	21:55
Total Response Time	Total Response Time 1st Unit on Scene Distribution	Metropolitan	10:41	12:49	19:15	10:58	10:41	10:16
			n=42	n=3	n=9	n=9	n=16	n=5
		Urban	13:10	10:05	N/A	17:02	13:10	12:58
			n=10	n=2	n=	n=3	n=1	n=4
		Suburban	14:46	09:56	10:31	14:46	16:07	06:43
			n=15	n=1	n=3	n=2	n=7	n=2
		Rural	16:40	16:40	16:07	10:39	18:51	19:06
			n=58	n=15	n=5	n=8	n=17	n=14
		Countywide	15:11	15:19	16:07	10:58	14:02	15:41
			n=125	n=21	n=17	n=22	n=41	n=25
	Total Response Time ERF Concentration	Metropolitan	50:26	17:22	17:10	50:26	30:30	19:52
			n=7	n=1	n=1	n=1	n=2	n=2
		Urban	38:31	38:31	N/A	N/A	19:55	26:50
			n=3	n=1	n=	n=	n=1	n=1
		Suburban	15:03	N/A	13:06	N/A	15:03	13:18
			n=3	n=	n=1	n=	n=1	n=1
		Rural	32:36	47:36	N/A	32:36	23:23	57:04
			n=22	n=7	n=	n=3	n=5	n=7
		Countywide	38:31	47:36	17:10	50:26	30:30	30:31
			n=35	n=9	n=2	n=4	n=9	n=11

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Water-Ice Rescue / Risk Classification: Moderate

BASELINE (ACTUAL) PERFORMANCE STATEMENT

MODERATE RISK WATER-ICE RESCUE– WIR-MR

For moderate-risk water-ice rescue incidents, the baseline total response time (TRT) at the 90th percentile for first arrival of the applicable unit is as follows in each of the density zones:

Metropolitan: 10:41 / Urban: 13:10 / Suburban: 14:46 / Rural: 16:40

For phone to dispatch (PtoD) call-processing at the 90th percentile and Countywide: **5:13**

For turnout time at the 90th percentile and Countywide: **04:38**

The travel time for the arrival of the first applicable unit is as follows in each of the density zones:

Metropolitan: 05:08 / Urban: 08:59 / Suburban: 07:09 / Rural: 10:00

The effective response force (ERF) baseline TRT at the 90th percentile is as follows in each of the density zones:

Metropolitan: 50:26 / Urban: 38:31 / Suburban: 15:03 / Rural: 32:36

The first-arriving unit for all water-ice rescue-related risks shall: Provide Initial On-Scene Report (IOSR); Identify and separate witnesses; Ensure no one is allowed within 10' of water's edge without a PFD; Attempt to identify Point Last Seen (PLS) and Point of Entry (POE); Mark water line if incident involves moving water; Provide Situation Update Reports; Ensure at least 2 upstream spotters and 2 downstream safety personnel are in place prior to anyone entering the hot zone (Water).

MCFRS

COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Water-Ice Rescue / Risk Classification: Moderate

BENCHMARK (TARGET GOAL) PERFORMANCE STATEMENT

MODERATE RISK WATER-ICE RESCUE– WIR-MR

For moderate-risk water-ice rescue incidents, the benchmark target goal total response time (TRT) at the 90th percentile for first arrival of the applicable unit is as follows in each of the density zones:

Metropolitan: 11:30 / Urban: 11:45 / Suburban: 12:30 / Rural: 13:45

For phone to dispatch (PtoD) call-processing at the 90th percentile and Countywide: **3:00**

For turnout time at the 90th percentile and Countywide: **01:30**

The travel time for the arrival of the first applicable unit is as follows in each of the density zones:

Metropolitan: 06:45 / Urban: 07:15 / Suburban: 08:00 / Rural: 09:15

The effective response force (ERF) baseline TRT at the 90th percentile is as follows in each of the density zones:

Metropolitan: 20:00 / Urban: 22:00 / Suburban: 26:00 / Rural: 30:00

The first-arriving unit for all water-ice rescue-related risks shall: Provide Initial On-Scene Report (IOSR); Identify and separate witnesses; Ensure no one is allowed within 10' of water's edge without a PFD; Attempt to identify Point Last Seen (PLS) and Point of Entry (POE); Mark water line if incident involves moving water; Provide Situation Update Reports; Ensure at least 2 upstream spotters and 2 downstream safety personnel are in place prior to anyone entering the hot zone (Water).

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Water-Ice Rescue / Risk Classification: High

(High Risk) Water/Ice Rescue – WIR-HR - 90th Percentile Times - Baseline Performance		FY 2013 - FY 2017	FY 2017	FY 2016	FY 2015	FY 2014	FY 2013
Alarm Handling Pick-up to Dispatch	Metropolitan	N/A	N/A	N/A	N/A	N/A	N/A
	Urban	N/A	N/A	N/A	N/A	N/A	N/A
	Suburban	N/A	N/A	N/A	N/A	N/A	N/A
	Rural	08:14	13:32	04:56	15:20	05:25	05:14
	Countywide	08:14	13:32	04:56	15:20	05:25	05:15
Turnout Time Turnout Time 1st Unit	Metropolitan	N/A	N/A	N/A	N/A	N/A	N/A
	Urban	N/A	N/A	N/A	N/A	N/A	N/A
	Suburban	N/A	N/A	N/A	N/A	N/A	N/A
	Rural	07:21	03:23	04:39	07:34	07:52	08:05
	Countywide	07:21	03:23	04:39	07:34	07:52	08:05
Travel Time	Travel Time 1st Unit Distribution	Metropolitan	N/A	N/A	N/A	N/A	N/A
		Urban	N/A	N/A	N/A	N/A	N/A
		Suburban	N/A	N/A	N/A	N/A	N/A
		Rural	18:16	18:38	14:30	18:16	35:36
		Countywide	18:16	18:38	14:30	18:16	35:36
	Travel Time ERF Concentration	Metropolitan	N/A	N/A	N/A	N/A	N/A
		Urban	N/A	N/A	N/A	N/A	N/A
		Suburban	N/A	N/A	N/A	N/A	N/A
		Rural	44:24	39:06	1:02:53	44:24	14:16
		Countywide	44:24	39:06	1:02:53	44:24	14:16
Total Response Time	Total Response Time 1st Unit on Scene Distribution	Metropolitan	N/A	N/A	N/A	N/A	N/A
			n=	n=XX	n=	n=	n=
		Urban	N/A	N/A	N/A	N/A	N/A
			n=	n=XX	n=	n=	n=
		Suburban	N/A	N/A	N/A	N/A	N/A
			n=	n=XX	n=	n=	n=
		Rural	27:02	30:15	20:08	25:16	40:30
			n=21	n=4	n=4	n=3	n=5
		Countywide	27:02	30:15	20:08	25:16	40:30
			n=21	n=4	n=4	n=3	n=5
	Total Response Time ERF Concentration	Metropolitan	N/A	N/A	N/A	N/A	N/A
			n=	n=	n=	n=	n=
		Urban	N/A	N/A	N/A	N/A	N/A
			n=	n=	n=	n=	n=
		Suburban	N/A	N/A	N/A	N/A	N/A
			n=	n=	n=	n=	n=
		Rural	1:03:38	48:55	1:09:12	1:03:38	23:36
			n=10	n=2	n=3	n=2	n=1
		Countywide	1:03:38	48:55	1:09:12	1:03:38	23:36
			n=10	n=2	n=3	n=2	n=1

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Water-Ice Rescue / Risk Classification: High

BASELINE (ACTUAL) PERFORMANCE STATEMENT

HIGH RISK WATER-ICE RESCUE– WIR-HR

For high-risk water-ice rescue incidents, the baseline total response time (TRT) at the 90th percentile for first arrival of the applicable unit is as follows in each of the density zones:

Metropolitan: N/A / Urban: N/A / Suburban: N/A / Rural: 27:02

For phone to dispatch (PtoD) call-processing at the 90th percentile and Countywide: **8:14**

For turnout time at the 90th percentile and Countywide: **07:21**

The travel time for the arrival of the first applicable unit is as follows in each of the density zones:

Metropolitan: N/A / Urban: N/A / Suburban: N/A / Rural: 18:16

The effective response force (ERF) baseline TRT at the 90th percentile is as follows in each of the density zones:

Metropolitan: N/A / Urban: N/A / Suburban: N/A / Rural: 1:03:38

The first-arriving unit for all water-ice rescue-related risks shall: Provide Initial On-Scene Report (IOSR); Identify and separate witnesses; Ensure no one is allowed within 10' of water's edge without a PFD; Attempt to identify Point Last Seen (PLS) and Point of Entry (POE); Mark water line if incident involves moving water; Provide Situation Update Reports; Ensure at least 2 upstream spotters and 2 downstream safety personnel are in place prior to anyone entering the hot zone (Water).

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Water-Ice Rescue / Risk Classification: High

BENCHMARK (TARGET GOAL) PERFORMANCE STATEMENT

HIGH RISK WATER-ICE RESCUE– WIR-HR

For high-risk water-ice rescue incidents, the benchmark target goal total response time (TRT) at the 90th percentile for first arrival of the applicable unit is as follows in each of the density zones:

Metropolitan: 11:30 / Urban: 11:45 / Suburban: 12:30 / Rural: 13:45

For phone to dispatch (PtoD) call-processing at the 90th percentile and Countywide: **3:00**

For turnout time at the 90th percentile and Countywide: **01:30**

The travel time for the arrival of the first applicable unit is as follows in each of the density zones:

Metropolitan: 06:45 / Urban: 07:15 / Suburban: 08:00 / Rural: 09:15

The effective response force (ERF) baseline TRT at the 90th percentile is as follows in each of the density zones:

Metropolitan: 22:00 / Urban: 24:00 / Suburban: 28:00 / Rural: 33:00

The first-arriving unit for all water-ice rescue-related risks shall: Provide Initial On-Scene Report (IOSR); Identify and separate witnesses; Ensure no one is allowed within 10' of water's edge without a PFD; Attempt to identify Point Last Seen (PLS) and Point of Entry (POE); Mark water line if incident involves moving water; Provide Situation Update Reports; Ensure at least 2 upstream spotters and 2 downstream safety personnel are in place prior to anyone entering the hot zone (Water).

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Water-Ice Rescue / Risk Classification: Special

(Special Risk) Water/Ice Rescue – WIR-SR - 90th Percentile Times - Baseline Performance		FY 2013 - FY 2017	FY 2017	FY 2016	FY 2015	FY 2014	FY 2013
Alarm Handling Pick-up to Dispatch	Metropolitan	N/A	N/A	N/A	N/A	N/A	N/A
	Urban	N/A	N/A	N/A	N/A	N/A	N/A
	Suburban	08:50	09:22	19:03	05:08	06:02	08:50
	Rural	06:15	07:06	06:15	05:37	05:48	05:52
	Countywide	06:15	08:28	06:45	05:37	05:48	07:00
Turnout Time Turnout Time 1st Unit	Metropolitan	N/A	N/A	N/A	N/A	N/A	N/A
	Urban	N/A	N/A	N/A	N/A	N/A	N/A
	Suburban	03:38	04:42	02:24	03:02	02:57	03:42
	Rural	03:42	02:53	03:03	03:17	04:09	04:26
	Countywide	03:42	02:53	02:50	03:17	03:55	04:24
Travel Time	Travel Time 1st Unit Distribution	Metropolitan	N/A	N/A	N/A	N/A	N/A
		Urban	N/A	N/A	N/A	N/A	N/A
		Suburban	08:03	07:19	19:03	07:21	08:03
		Rural	09:23	11:27	06:15	09:08	07:48
		Countywide	09:16	10:16	06:45	08:41	07:48
	Travel Time ERF Concentration	Metropolitan	N/A	N/A	N/A	N/A	N/A
		Urban	N/A	N/A	N/A	N/A	N/A
		Suburban	17:27	17:27	17:03	12:22	42:28
		Rural	28:01	32:06	23:28	20:02	30:11
		Countywide	26:15	32:06	23:04	20:02	40:47
Total Response Time	Total Response Time 1st Unit on Scene Distribution	Metropolitan	N/A	N/A	N/A	N/A	N/A
			n=	n=XX	n=	n=	n=
		Urban	N/A	N/A	N/A	N/A	N/A
			n=	n=XX	n=	n=	n=
		Suburban	14:53	14:14	20:16	12:35	16:32
			n=24	n=5	n=5	n=3	n=7
		Rural	16:03	17:05	16:04	14:09	13:47
			n=186	n=40	n=44	n=40	n=32
		Countywide	15:59	32:06	16:14	14:09	14:58
			n=210	n=45	n=49	n=43	n=39
	Total Response Time ERF Concentration	Metropolitan	N/A	N/A	N/A	N/A	N/A
			n=	n=	n=	n=	n=
		Urban	N/A	N/A	N/A	N/A	N/A
			n=	n=	n=	n=	n=
		Suburban	50:18	24:12	21:38	50:18	51:01
			n=15	n=3	n=3	n=2	n=4
		Rural	38:50	42:22	34:17	28:07	41:33
			n=112	n=15	n=26	n=30	n=23
		Countywide	39:11	42:22	34:17	32:32	51:01
			n=127	n=18	n=29	n=32	n=27

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Water-Ice Rescue / Risk Classification: Special

BASELINE (ACTUAL) PERFORMANCE STATEMENT

SPECIAL RISK WATER-ICE RESCUE– WIR-SR

For special-risk water-ice rescue incidents, the baseline total response time (TRT) at the 90th percentile for first arrival of the applicable unit is as follows in each of the density zones:

Metropolitan: N/A / Urban: N/A / Suburban: 14:53 / Rural: 16:03

For phone to dispatch (PtoD) call-processing at the 90th percentile and Countywide: **6:15**

For turnout time at the 90th percentile and Countywide: **03:42**

The travel time for the arrival of the first applicable unit is as follows in each of the density zones:

Metropolitan: N/A / Urban: N/A / Suburban: 08:03 / Rural: 09:23

The effective response force (ERF) baseline TRT at the 90th percentile is as follows in each of the density zones:

Metropolitan: N/A / Urban: N/A / Suburban: 50:18 / Rural: 38:50

The first-arriving unit for all water-ice rescue-related risks shall: Provide Initial On-Scene Report (IOSR); Identify and separate witnesses; Ensure no one is allowed within 10' of water's edge without a PFD; Attempt to identify Point Last Seen (PLS) and Point of Entry (POE); Mark water line if incident involves moving water; Provide Situation Update Reports; Ensure at least 2 upstream spotters and 2 downstream safety personnel are in place prior to anyone entering the hot zone (Water).

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Water-Ice Rescue / Risk Classification: Special

BENCHMARK (TARGET GOAL) PERFORMANCE STATEMENT

SPECIAL RISK WATER-ICE RESCUE– WIR-SR

For special-risk water-ice rescue incidents, the benchmark target goal total response time (TRT) at the 90th percentile for first arrival of the applicable unit is as follows in each of the density zones:

Metropolitan: 11:30 / Urban: 11:45 / Suburban: 12:30 / Rural: 13:45

For phone to dispatch (PtoD) call-processing at the 90th percentile and Countywide: **3:00**

For turnout time at the 90th percentile and Countywide: **01:30**

The travel time for the arrival of the first applicable unit is as follows in each of the density zones:

Metropolitan: 06:45 / Urban: 07:15 / Suburban: 08:00 / Rural: 09:15

The effective response force (ERF) baseline TRT at the 90th percentile is as follows in each of the density zones:

Metropolitan: 24:00 / Urban: 26:00 / Suburban: 30:00 / Rural: 36:00

The first-arriving unit for all water-ice rescue-related risks shall: Provide Initial On-Scene Report (IOSR); Identify and separate witnesses; Ensure no one is allowed within 10' of water's edge without a PFD; Attempt to identify Point Last Seen (PLS) and Point of Entry (POE); Mark water line if incident involves moving water; Provide Situation Update Reports; Ensure at least 2 upstream spotters and 2 downstream safety personnel are in place prior to anyone entering the hot zone (Water).

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Aviation Rescue Firefighting / Risk Classification: High

(High Risk) Aircraft Rescue FF – ARF-HR - 90th Percentile Times - Baseline Performance NOTE: Analysis mirrors HM-HR as response plans are exactly the same.		FY 2013 - FY 2017	FY 2017	FY 2016	FY 2015	FY 2014	FY 2013
Alarm Handling Pick-up to Dispatch	Metropolitan	06:02	06:24	08:04	05:16	06:11	06:10
	Urban	05:30	N/A	03:42	05:21	11:49	06:07
	Suburban	05:51	02:24	04:34	10:32	05:51	05:31
	Rural	06:21	06:58	07:14	05:15	05:32	06:33
	Countywide	06:01	06:24	07:14	05:21	05:55	06:07
Turnout Time Turnout Time 1st Unit	Metropolitan	03:01	02:58	02:36	02:56	03:01	03:21
	Urban	02:49	N/A	03:13	03:04	02:37	02:47
	Suburban	03:08	01:44	03:21	03:40	03:03	02:46
	Rural	03:17	03:52	02:59	03:18	03:07	02:51
	Countywide	03:01	03:02	03:01	03:01	02:59	03:04
Travel Time	Travel Time 1st Unit Distribution	Metropolitan	04:56	05:34	04:16	05:05	04:52
		Urban	05:46	N/A	04:26	07:59	07:28
		Suburban	06:25	04:46	03:00	07:13	06:58
		Rural	06:23	07:02	06:16	06:11	17:30
		Countywide	05:25	05:34	05:28	06:11	05:30
	Travel Time ERF Concentration	Metropolitan	20:17	21:17	21:30	14:09	23:38
		Urban	23:48	N/A	09:10	19:42	23:48
		Suburban	14:44	12:18	12:17	14:44	09:54
		Rural	35:06	N/A	26:50	2:03:25	19:47
		Countywide	22:38	21:17	21:30	17:41	21:39
Total Response Time	Total Response Time 1st Unit on Scene Distribution	Metropolitan	11:38	11:46	14:01	11:16	11:38
			n=232	n=17	n=15	n=64	n=67
		Urban	12:33	N/A	09:05	12:35	15:46
			n=20	n=XX	n=3	n=4	n=8
		Suburban	11:35	08:15	08:57	18:02	11:35
			n=28	n=1	n=2	n=8	n=10
		Rural	11:40	15:59	13:54	11:40	10:50
			n=32	n=2	n=7	n=10	n=7
		Countywide	11:40	11:46	13:54	11:40	11:34
			n=312	n=20	n=27	n=86	n=94
	Total Response Time ERF Concentration	Metropolitan	31:45	35:08	33:21	25:00	33:33
			n=74	n=4	n=5	n=22	n=27
		Urban	33:49	N/A	14:19	27:06	25:38
			n=5	n=	n=1	n=2	n=1
		Suburban	20:43	16:14	18:58	20:43	16:57
			n=10	n=1	n=2	n=3	n=2
		Rural	40:35	N/A	35:02	2:09:26	28:09
			n=11	n=	n=2	n=6	n=1
		Countywide	33:21	35:08	33:21	27:51	32:04
			n=100	n=5	n=10	n=33	n=31

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Aviation Rescue Firefighting / Risk Classification: High

BASELINE (ACTUAL) PERFORMANCE STATEMENT

HIGH RISK AVIATION RESCUE FIREFIGHTING – ARF-HR

For high-risk aviation rescue firefighting incidents, the baseline total response time (TRT) at the 90th percentile for first arrival of the applicable unit is as follows in each of the density zones:

Metropolitan: 11:38 / Urban: 12:33 / Suburban: 11:35 / Rural: 11:40

For phone to dispatch (PtoD) call-processing at the 90th percentile and Countywide: **6:01**

For turnout time at the 90th percentile and Countywide: **03:01**

The travel time for the arrival of the first applicable unit is as follows in each of the density zones:

Metropolitan: 04:56 / Urban: 05:46 / Suburban: 06:25 / Rural: 06:23

The effective response force (ERF) baseline TRT at the 90th percentile is as follows in each of the density zones:

Metropolitan: 31:45 / Urban: 33:49 / Suburban: 20:43 / Rural: 40:35

The first-arriving unit for all aviation rescue firefighting-related risks shall: Provide Initial On-Scene Report (IOSR); Confirm incident location; If an engine and if applicable, establish uninterrupted water supply of a minimum of 500 GPM for 30 minutes with supply line(s) maintained by an operator; Establish command and assign units/groups/division as needed; Consider need for Mass Casualty response; Locate airport or airpark manager if applicable; Position to allow approach from uphill and upwind in line with front of aircraft; Ensure personnel do not approach aircraft until engines are shut down and rotors/propellers have stopped turning; Provide Situation Update Reports.

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Aviation Rescue Firefighting / Risk Classification: High

BENCHMARK (TARGET GOAL) PERFORMANCE STATEMENT

HIGH RISK AVIATION RESCUE FIREFIGHTING – ARF-HR

For special-risk water-ice rescue incidents, the benchmark target goal total response time (TRT) at the 90th percentile for first arrival of the applicable unit is as follows in each of the density zones:

Metropolitan: 11:30 / Urban: 11:45 / Suburban: 12:30 / Rural: 13:45

For phone to dispatch (PtoD) call-processing at the 90th percentile and Countywide: **3:00**

For turnout time at the 90th percentile and Countywide: **01:30**

The travel time for the arrival of the first applicable unit is as follows in each of the density zones:

Metropolitan: 06:45 / Urban: 07:15 / Suburban: 08:00 / Rural: 09:15

The effective response force (ERF) baseline TRT at the 90th percentile is as follows in each of the density zones:

Metropolitan: 22:00 / Urban: 24:00 / Suburban: 28:00 / Rural: 33:00

The first-arriving unit for all aviation rescue firefighting-related risks shall: Provide Initial On-Scene Report (IOSR); Confirm incident location; If an engine and if applicable, establish uninterrupted water supply of a minimum of 500 GPM for 30 minutes with supply line(s) maintained by an operator; Establish command and assign units/groups/division as needed; Consider need for Mass Casualty response; Locate airport or airpark manager if applicable; Position to allow approach from uphill and upwind in line with front of aircraft; Ensure personnel do not approach aircraft until engines are shut down and rotors/propellers have stopped turning; Provide Situation Update Reports.

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Aviation Rescue Firefighting / Risk Classification: Special

(Special Risk) Aircraft Rescue FF – ARF-SR - 90th Percentile Times - Baseline Performance NOTE: Analysis mirrors HM-SR as response plans are exactly the same.		FY 2013 - FY 2017	FY 2017	FY 2016	FY 2015	FY 2014	FY 2013
Alarm Handling Pick-up to Dispatch	Metropolitan	04:23	03:57	03:46	04:15	04:45	05:06
	Urban	04:16	03:11	04:16	04:25	04:42	03:18
	Suburban	03:29	02:56	03:21	02:35	04:38	03:29
	Rural	04:42	04:54	06:00	03:20	05:01	04:00
	Countywide	04:27	04:17	04:16	04:16	04:45	04:09
Turnout Time Turnout Time 1st Unit	Metropolitan	03:00	02:46	03:24	02:48	03:10	03:21
	Urban	02:51	02:16	03:10	03:11	02:51	02:20
	Suburban	03:02	02:47	03:25	03:02	02:38	03:25
	Rural	03:08	03:33	02:41	03:04	03:03	03:57
	Countywide	03:02	02:51	03:11	02:53	03:03	03:24
Travel Time	Travel Time 1st Unit Distribution	Metropolitan	06:10	05:49	08:55	04:45	06:10
		Urban	07:02	06:47	06:17	07:02	10:38
		Suburban	06:44	06:04	07:30	00:42	06:44
		Rural	06:30	05:53	05:45	05:00	11:00
		Countywide	06:41	06:04	06:17	05:00	07:18
	Travel Time ERF Concentration	Metropolitan	25:30	18:34	24:19	40:17	25:38
		Urban	25:40	18:00	27:28	21:18	N/A
		Suburban	1:21:31	16:47	48:39	N/A	1:21:31
		Rural	40:32	18:06	24:35	40:32	31:08
		Countywide	27:28	18:06	25:59	40:17	31:08
Total Response Time	Total Response Time 1st Unit on Scene Distribution	Metropolitan	10:30	09:17	10:30	08:27	10:44
		n=143	n=26	n=18	n=44	n=38	n=18
		Urban	11:57	11:57	11:45	11:48	16:09
		n=20	n=3	n=5	n=7	n=3	n=2
		Suburban	12:08	10:21	12:08	05:41	15:10
		n=18	n=2	n=6	n=1	n=7	n=3
		Rural	13:10	13:42	14:46	10:42	15:24
		n=30	n=5	n=7	n=5	n=7	n=7
	Total Response Time ERF Concentration	Countywide	11:31	11:57	11:45	08:45	12:10
		n=211	n=36	n=36	n=57	n=55	n=30
		Metropolitan	55:45	1:19:07	23:21	1:11:02	58:23
		n=65	n=8	n=3	n=23	n=19	n=12
		Urban	35:43	N/A	34:21	35:43	N/A
		n=11	n=	n=3	n=6	n=	n=2
		Suburban	1:31:38	22:30	30:28	N/A	1:31:39
		n=6	n=1	n=1	n=	n=3	n=1
		Rural	1:31:43	23:53	28:41	14:58	1:00:34
		n=15	n=1	n=2	n=1	n=5	n=6
		Countywide	59:18	23:53	34:21	47:28	1:00:34

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Aviation Rescue Firefighting / Risk Classification: Special

BASELINE (ACTUAL) PERFORMANCE STATEMENT

SPECIAL RISK AVIATION RESCUE FIREFIGHTING – ARF-SR

For special-risk aviation rescue firefighting incidents, the baseline total response time (TRT) at the 90th percentile for first arrival of the applicable unit is as follows in each of the density zones:

Metropolitan: 10:30 / Urban: 11:57 / Suburban: 12:08 / Rural: 13:10

For phone to dispatch (PtoD) call-processing at the 90th percentile and Countywide: **4:27**

For turnout time at the 90th percentile and Countywide: **03:02**

The travel time for the arrival of the first applicable unit is as follows in each of the density zones:

Metropolitan: 06:10 / Urban: 07:02 / Suburban: 06:44 / Rural: 06:30

The effective response force (ERF) baseline TRT at the 90th percentile is as follows in each of the density zones:

Metropolitan: 55:45 / Urban: 33:43 / Suburban: 1:31:38 / Rural: 1:31:43

The first-arriving unit for all aviation rescue firefighting-related risks shall: Provide Initial On-Scene Report (IOSR); Confirm incident location; If an engine and if applicable, establish uninterrupted water supply of a minimum of 500 GPM for 30 minutes with supply line(s) maintained by an operator; Establish command and assign units/groups/division as needed; Consider need for Mass Casualty response; Locate airport or airpark manager if applicable; Position to allow approach from uphill and upwind in line with front of aircraft; Ensure personnel do not approach aircraft until engines are shut down and rotors/propellers have stopped turning; Provide Situation Update Reports.

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Aviation Rescue Firefighting / Risk Classification: Special

BENCHMARK (TARGET GOAL) PERFORMANCE STATEMENT

SPECIAL RISK AVIATION RESCUE FIREFIGHTING – ARF-SR

For special-risk aviation rescue firefighting incidents, the benchmark target goal total response time (TRT) at the 90th percentile for first arrival of the applicable unit is as follows in each of the density zones:

Metropolitan: 11:30 / Urban: 11:45 / Suburban: 12:30 / Rural: 13:45

For phone to dispatch (PtoD) call-processing at the 90th percentile and Countywide: **3:00**

For turnout time at the 90th percentile and Countywide: **01:30**

The travel time for the arrival of the first applicable unit is as follows in each of the density zones:

Metropolitan: 06:45 / Urban: 07:15 / Suburban: 08:00 / Rural: 09:15

The effective response force (ERF) baseline TRT at the 90th percentile is as follows in each of the density zones:

Metropolitan: 24:00 / Urban: 26:00 / Suburban: 30:00 / Rural: 36:00

The first-arriving unit for all aviation rescue firefighting-related risks shall: Provide Initial On-Scene Report (IOSR); Confirm incident location; If an engine and if applicable, establish uninterrupted water supply of a minimum of 500 GPM for 30 minutes with supply line(s) maintained by an operator; Establish command and assign units/groups/division as needed; Consider need for Mass Casualty response; Locate airport or airpark manager if applicable; Position to allow approach from uphill and upwind in line with front of aircraft; Ensure personnel do not approach aircraft until engines are shut down and rotors/propellers have stopped turning; Provide Situation Update Reports.

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Bomb Squad / Risk Classification: Moderate

(Moderate Risk) Bomb Squad – BS-MR - 90th Percentile Times - Baseline Performance		FY 2013 - FY 2017	FY 2017	FY 2016	FY 2015	FY 2014	FY 2013		
Alarm Handling Pick-up to Dispatch		Metropolitan	05:18	06:11	03:46	07:05	05:51	05:18	
		Urban	04:32	04:10	N/A	04:33	N/A	N/A	
		Suburban	06:02	N/A	02:24	06:02	N/A	04:06	
		Rural	04:22	05:16	06:54	04:07	04:41	02:43	
		Countywide	05:18	05:16	05:38	06:02	05:51	05:18	
Turnout Time Unit1st		Metropolitan	N/A	N/A	N/A	N/A	N/A	N/A	
		Urban	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		Suburban	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		Rural	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		Countywide	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Travel Time	Travel Time 1st Unit Distribution	Metropolitan	34:57	36:45	38:55	19:35	34:01	37:53	
		Urban	13:26	N/A	N/A	13:26	11:57	N/A	
		Suburban	19:45	01:00	05:46	19:45	N/A	00:01	
		Rural	41:30	11:54	42:44	07:30	00:47	11:46	
		Countywide	34:09	36:45	41:30	19:35	34:01	24:38	
	Travel Time ERF Concentration	Metropolitan	41:59	40:56	54:13	55:05	48:25	37:53	
		Urban	37:31	37:31	N/A	13:28	15:04	N/A	
		Suburban	25:05	N/A	23:20	25:05	N/A	18:49	
		Rural	30:50	13:34	42:47	30:50	14:46	12:09	
		Countywide	40:56	37:31	42:47	30:50	48:25	30:14	
Total Response Time	Total Response Time 1st Unit on Scene Distribution	Metropolitan	1:14:00	1:28:52	1:36:14	1:07:37	1:05:52	1:14:00	
			n=49	n=5	n=13	n=9	n=8	n=14	
		Urban	27:19	05:28	N/A	27:19	N/A	N/A	
			n=2	n=1	n=	n=1	n=	n=	
		Suburban	42:27	N/A	31:44	42:27	N/A	20:08	
			n=4	n=XX	n=1	n=2	n=	n=1	
		Rural	1:06:13	05:16	1:22:42	1:01:26	33:35	42:26	
			n=12	n=1	n=5	n=2	n=1	n=3	
		Countywide	1:12:45	1:28:52	1:36:14	1:01:26	1:05:52	1:14:00	
			n=67	n=7	n=19	n=14	n=9	n=18	
	Total Response Time ERF Concentration	Metropolitan	1:40:50	2:01:10	1:36:23	30:44	1:38:49	1:40:50	
			n=51	n=7	n=13	n=9	n=8	n=14	
		Urban	54:37	54:37	N/A	27:19	N/A	N/A	
			n=2	n=1	n=	n=1	n=	n=	
		Suburban	49:18	N/A	49:18	44:30	N/A	28:48	
			n=4	n=	n=1	n=2	n=	n=1	
		Rural	1:22:45	58:17	1:22:45	1:25:22	47:34	42:26	
			n=13	n=2	n=5	n=2	n=1	n=3	
		Countywide	1:36:23	1:10:24	1:36:23	2:05:09	1:38:49	1:40:50	
			n=70	n=10	n=19	n=14	n=9	n=18	

MCFRS

COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Bomb Squad / Risk Classification: Moderate

BASELINE (ACTUAL) PERFORMANCE STATEMENT

MODERATE RISK BOMB SQUAD INCIDENTS – BS-MR

For moderate-risk bomb squad incidents, the baseline total response time (TRT) at the 90th percentile for first arrival of a Fire Marshal or the BU700 unit is as follows in each of the density zones:

Metropolitan: 1:14:00 / Urban: 27:19 / Suburban: 42:27 / Rural: 1:06:13

For phone to dispatch (PtoD) call-processing at the 90th percentile and Countywide: **5:18**

For turnout time at the 90th percentile and Countywide: **N/A**

The travel time for the arrival of the first applicable unit is as follows in each of the density zones:

Metropolitan: 34:57 / Urban: 13:26 / Suburban: 19:45 / Rural: 41:30

The effective response force (ERF) baseline TRT at the 90th percentile is as follows in each of the density zones:

Metropolitan: 1:40:50 / Urban: 54:37 / Suburban: 49:18 / Rural: 1:22:45

The first-arriving bomb technician (FM or in BU700) for all bomb squad-related risks shall: Provide Initial On-Scene Report (IOSR); Confirm incident location; Establish command/unified command and assign units/groups/division as needed; Consider need for additional resources; Obtain intelligence and background information from the on-scene personnel or witnesses; Obtain detailed description of the suspected package (Polaroid photograph as applicable); Whenever possible, confirmation of the location of the suspected device will be accomplished without an approach; The “initial approach” will be performed by a bomb technician in the bomb suit or by robot as available/applicable; Provide Situation Update Reports.

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Bomb Squad / Risk Classification: Moderate BENCHMARK (TARGET GOAL) PERFORMANCE STATEMENT

MODERATE RISK BOMB SQUAD INCIDENTS – BS-MR

For moderate-risk bomb squad incidents, the benchmark target goal total response time (TRT) at the 90th percentile for first arrival of a Fire Marshal or the BU700 unit is as follows in each of the density zones:

Metropolitan: 50:00 / Urban: 50:00 / Suburban: 55:00 / Rural: 60:00

For phone to dispatch (PtoD) call-processing at the 90th percentile and Countywide: **N/A**

For turnout time at the 90th percentile and Countywide: **N/A**

The travel time for the arrival of the first applicable unit is as follows in each of the density zones:

Metropolitan: N/A / Urban: N/A / Suburban: N/A / Rural: N/A

The effective response force (ERF) baseline TRT at the 90th percentile is as follows in each of the density zones:

Metropolitan: 60:00 / Urban: 60:00 / Suburban: 65:00 / Rural: 70:00

The first-arriving bomb technician (FM or in BU700) for all bomb squad-related risks shall: Provide Initial On-Scene Report (IOSR); Confirm incident location; Establish command/unified command and assign units/groups/division as needed; Consider need for additional resources; Obtain intelligence and background information from the on-scene personnel or witnesses; Obtain detailed description of the suspected package (Polaroid photograph as applicable); Whenever possible, confirmation of the location of the suspected device will be accomplished without an approach; The “initial approach” will be performed by a bomb technician in the bomb suit or by robot as available/applicable; Provide Situation Update Reports.

MCFRS

COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Bomb Squad / Risk Classification: High

(High Risk) Bomb Squad – BS-HR - 90th Percentile Times - Baseline Performance		FY 2013 - FY 2017	FY 2017	FY 2016	FY 2015	FY 2014	FY 2013
Alarm Handling Pick-up to Dispatch	Metropolitan	04:51	N/A	N/A	N/A	04:51	N/A
	Urban	N/A	N/A	N/A	N/A	N/A	N/A
	Suburban	N/A	N/A	N/A	N/A	N/A	N/A
	Rural	04:04	N/A	04:04	N/A	N/A	N/A
	Countywide	04:51	N/A	04:04	N/A	04:51	N/A
Turnout Time Turnout Time Unit 1st	Metropolitan	04:16	N/A	3:03	31:47	04:18	03:47
	Urban	N/A	N/A	N/A	N/A	N/A	N/A
	Suburban	N/A	N/A	N/A	N/A	N/A	N/A
	Rural	01:03	N/A	01:03	N/A	N/A	N/A
	Countywide	04:16	N/A	03:03	31:47	04:18	03:47
Travel Time	Travel Time 1st Unit Distribution	Metropolitan	16:34	N/A	08:44	07:19	13:01
		Urban	N/A	N/A	N/A	N/A	N/A
		Suburban	N/A	N/A	N/A	N/A	N/A
		Rural	05:03	N/A	05:03	N/A	N/A
		Countywide	13:01	N/A	08:44	07:19	13:01
	Travel Time ERF Concentration	Metropolitan	1:56:29	N/A	1:56:29	00:47	1:25:39
		Urban	N/A	N/A	N/A	N/A	N/A
		Suburban	N/A	N/A	N/A	N/A	N/A
		Rural	55:37	N/A	55:37	N/A	N/A
		Countywide	1:25:39	N/A	1:56:29	00:47	1:25:39
Total Response Time	Total Response Time 1st Unit on Scene Distribution	Metropolitan	37:32	N/A	N/A	N/A	37:32
			n=3	n=XX	n=	n=	n=3
		Urban	N/A	N/A	N/A	N/A	N/A
			n=	n=XX	n=	n=	n=
		Suburban	N/A	N/A	N/A	N/A	N/A
			n=	n=XX	n=	n=	n=
		Rural	09:56	N/A	09:56	N/A	N/A
			n=1	n=XX	n=1	n=	n=
		Countywide	37:32	N/A	09:56	N/A	37:32
			n=4	n=XX	n=1	n=	n=3
	Total Response Time ERF Concentration	Metropolitan	3:25:28	N/A	N/A	N/A	3:25:28
			n=3	n=	n=	n=	n=3
		Urban	N/A	N/A	N/A	N/A	N/A
			n=	n=	n=	n=	n=
		Suburban	N/A	N/A	N/A	N/A	N/A
			n=	n=	n=	n=	n=
		Rural	1:12:20	N/A	1:12:20	N/A	N/A
			n=1	n=	n=1	n=	n=
		Countywide	3:25:28	N/A	1:12:20	N/A	3:25:28
			n=4	n=	n=1	n=	n=3

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Bomb Squad / Risk Classification: High

BASELINE (ACTUAL) PERFORMANCE STATEMENT

HIGH RISK BOMB SQUAD INCIDENTS – BS-HR

For high-risk bomb squad incidents, the baseline total response time (TRT) at the 90th percentile for first arrival of an applicable unit is as follows in each of the density zones:

Metropolitan: 37:32 / Urban: N/A / Suburban: N/A / Rural: 09:56

For phone to dispatch (PtoD) call processing at the 90th percentile and Countywide: **04:51**

For turnout time at the 90th percentile and Countywide: **04:16**

The travel time for the arrival of the first applicable unit is as follows in each of the density zones:

Metropolitan: 16:34 / Urban: N/A / Suburban: N/A / Rural: 05:03

The effective response force (ERF) baseline TRT at the 90th percentile is as follows in each of the density zones:

Metropolitan: 3:25:28 / Urban: N/A / Suburban: N/A / Rural: 09:56

The first-arriving bomb technician (FM or in BU700) for all bomb squad-related risks shall: Provide Initial On-Scene Report (IOSR); Confirm incident location; Establish command/unified command and assign units/groups/division as needed; Consider need for additional resources; Obtain intelligence and background information from the on-scene personnel or witnesses; Obtain detailed description of the suspected package (Polaroid photograph as applicable); Whenever possible, confirmation of the location of the suspected device will be accomplished without an approach; The “initial approach” will be performed by a bomb technician in the bomb suit or by robot as available/applicable; Provide Situation Update Reports.

MCFRS

COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Bomb Squad / Risk Classification: High

BENCHMARK (TARGET GOAL) PERFORMANCE STATEMENT

HIGH RISK BOMB SQUAD INCIDENTS – BS-HR

For high-risk bomb squad incidents, the benchmark target goal total response time (TRT) at the 90th percentile for the first arrival of an applicable unit is as follows in each of the density zones:

Metropolitan: 35:00 / Urban: 35:00 / Suburban: 40:00 / Rural: 50:00

For phone to dispatch (PtoD) call-processing at the 90th percentile and Countywide: **N/A**

For turnout time at the 90th percentile and Countywide: **N/A**

The travel time for the arrival of the first applicable unit is as follows in each of the density zones:

Metropolitan: N/A / Urban: N/A / Suburban: N/A / Rural: N/A

The effective response force (ERF) baseline TRT at the 90th percentile is as follows in each of the density zones:

Metropolitan: 45:00 / Urban: 45:00 / Suburban: 50:00 / Rural: 60:00

The first-arriving bomb technician (FM or in BU700) for all bomb squad-related risks shall: Provide Initial On Scene Report (IOSR); Confirm incident location; Establish command/unified command and assign units/groups/division as needed; Consider need for additional resources; Obtain intelligence and background information from the on-scene personnel or witnesses; Obtain detailed description of the suspected package (Polaroid photograph as applicable); Whenever possible, confirmation of the location of the suspected device will be accomplished without an approach; The “initial approach” will be performed by a bomb technician in the bomb suit or by robot as available/applicable; Provide Situation Update Reports.

MCFRS

COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Bomb Squad / Risk Classification: Special

(Special Risk) Bomb Squad – BS-SR - 90th Percentile Times - Baseline Performance		FY 2013 - FY 2017	FY 2017	FY 2016	FY 2015	FY 2014	FY 2013	
Alarm Handling Pick-up to Dispatch		Metropolitan	05:24	05:24	01:19	03:08	N/A	29:44
		Urban	N/A	N/A	N/A	N/A	N/A	N/A
		Suburban	N/A	N/A	N/A	N/A	N/A	N/A
		Rural	03:50	N/A	N/A	03:45	N/A	03:50
		Countywide	05:24	05:24	01:19	03:45	N/A	29:44
Turnout Time Unit								

MCFRS

COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Bomb Squad / Risk Classification: Special

BASELINE (ACTUAL) PERFORMANCE STATEMENT

SPECIAL RISK BOMB SQUAD INCIDENTS – BS-SR

For special-risk bomb squad incidents, the baseline total response time (TRT) at the 90th percentile for first arrival of an applicable unit is as follows in each of the density zones:

Metropolitan: 43:51 / Urban: N/A / Suburban: N/A / Rural: 01:32:49

For phone to dispatch (PtoD) call-processing at the 90th percentile and Countywide: **5:24**

For turnout time at the 90th percentile and Countywide: **04:48**

The travel time for the arrival of the first applicable unit is as follows in each of the density zones:

Metropolitan: 39:09 / Urban: N/A / Suburban: 00:36 / Rural: 21:42

The effective response force (ERF) baseline TRT at the 90th percentile is as follows in each of the density zones:

Metropolitan: 43:51 / Urban: N/A / Suburban: N/A / Rural: 1:32:49

The first-arriving bomb technician (FM or in BU700) for all bomb squad-related risks shall: Provide Initial On-Scene Report (IOSR); Confirm incident location; Establish command/unified command and assign units/groups/division as needed; Consider need for additional resources; Obtain intelligence and background information from the on-scene personnel or witnesses; Obtain detailed description of the suspected package (Polaroid photograph as applicable); Whenever possible, confirmation of the location of the suspected device will be accomplished without an approach; The “initial approach” will be performed by a bomb technician in the bomb suit or by robot as available/applicable; Provide Situation Update Reports.

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Bomb Squad / Risk Classification: Special

BENCHMARK (TARGET GOAL) PERFORMANCE STATEMENT

SPECIAL RISK BOMB SQUAD INCIDENTS – BS-SR

For special-risk bomb squad incidents, the benchmark target goal total response time (TRT) at the 90th percentile for first arrival of an applicable unit is as follows in each of the density zones:

Metropolitan: 35:00 / Urban: 35:00 / Suburban: 40:00 / Rural: 50:00

For phone to dispatch (PtoD) call-processing at the 90th percentile and Countywide: **N/A**

For turnout time at the 90th percentile and Countywide: **N/A**

The travel time for the arrival of the first applicable unit is as follows in each of the density zones:

Metropolitan: N/A / Urban: N/A / Suburban: N/A / Rural: N/A

The effective response force (ERF) baseline TRT at the 90th percentile is as follows in each of the density zones:

Metropolitan: 45:00 / Urban: 45:00 / Suburban: 50:00 / Rural: 60:00

The first-arriving bomb technician (FM or in BU700) for all bomb squad-related risks shall: Provide Initial On Scene Report (IOSR); Confirm incident location; Establish command/unified command and assign units/groups/division as needed; Consider need for additional resources; Obtain intelligence and background information from the on-scene personnel or witnesses; Obtain detailed description of the suspected package (Polaroid photograph as applicable); Whenever possible, confirmation of the location of the suspected device will be accomplished without an approach; The “initial approach” will be performed by a bomb technician in the bomb suit or by robot as available/applicable; Provide Situation Update Reports.

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Determination if Response Time Performance Objectives Met [CC 2C.5]

Over the years and through the Commission on Fire Accreditation International's (CFAI) framework, MCFRS has developed sophisticated processes to constantly analyze and report service delivery response times, at the 90th percentile fractal and within each component of the response time continuum. These actual/baseline response times are clearly and quantitatively documented within all of the previous data charts provided within this section of the CRA/SOC.

MCFRS has also implemented future benchmark target response time goals for each of these many emergency service delivery programs, which are documented in each of the previous benchmark statements. Equally as important, they are also documented within the MCFRS *2016-2022 Fire, Rescue, Emergency Medical Services and Community Risk Reduction Master Plan* within [Table 3](#) for first-arriving unit and [Table 4](#) for ERF. The benchmark targets were developed with a commitment of attempting to reach national standards' recommendations and well as realistic expectations. MCFRS also understands and continues to attempt to bridge the gap between baseline performance and benchmark targets and acknowledges the CFAI framework and mandates for institutionalization greatly assists with implementing complex solutions to achieving these goals.

However, datamining, monitoring, analyzing, and subsequently implementing programs and changes to address response time gaps does not necessarily define whether an agency can definitively acknowledge it is meeting its response time objectives. Documenting this is a core competency within the CFAI self-assessment processes within numerous criteria under Category V.

To this end, MCFRS has recently developed a process to determine whether its core response programs (i.e., fire suppression and EMS) are meeting response time objectives. This process is explained on the following pages.

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

MCFRS Determination if Response Time Performance Objectives Met

PERFORMANCE GOAL

To gradually improve MCFRS 90th percentile response times across our 21 emergency response programs as the department works toward achieving our 2022 benchmarks published in our *2016-2022 Fire, Rescue, Emergency Medical Services, and Community Risk Reduction Master Plan*.

PERFORMANCE OBJECTIVES

- 1. To improve 90th percentile total response time within each emergency program (for both first-arriving unit and effective response force) each fiscal year by $\geq 3\%$ compared to the previous year's baseline time.**
- 2. To address expected variation in 90th percentile response times from year to year as the department moves toward achieving our 2022 benchmarks, an acceptable increase from one fiscal year to the next (should an increase occur) has been established by the Fire Chief at $\leq 3\%$ of the 90th percentile total response time for the previous 5-year period.**

MCFRS acknowledges that Objective #1 will not be met for all emergency programs 100% of the time, year after year, due to many variables such as increased call load, resource availability, inclement weather, communications/technology issues, etc.). Variations above and below baseline 90th percentile response times will inevitably occur. To address these variations, an acceptable increase from one fiscal year to the next has been established by the Fire Chief at $\leq 3\%$ of the 90th percentile response time for the previous 5-year period (i.e., Objective #2). To eventually reach the established benchmarks, any year having an increased 90th percentile time would need to be offset by an equivalent or greater reduction in times in the years that follow.

Improved (decreased) response times, particularly those exceeding -3%, are highly desirable whereas increased times, particularly those exceeding 3%, are a sign of concern that must be addressed as quickly as possible.

MCFRS

COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Fire Suppression Program / Determination if Total Response Time Performance Objectives Met

For fire suppression, there are 6 individual programs (FFA-HY, FFA-SRHR, FFA-NH, A1F, A1N, A2-3), each having 90th percentile times for our four density zones plus countywide (shown in five columns); thus, there are 30 cells in the first-arriving unit table pertaining to fire suppression. MCFRS has established that if $\leq 30\%$ of the cells have red shading, then we have met the overall (or final) objective concerning response time. Stated differently, if $\geq 70\%$ of the cells are not shaded red, then our overall objective has been met. Based upon the 30%/70% threshold, there are 6 red cells of 30 total cells pertaining to fire suppression in the first-arriving unit table, which indicates a 20% failure rate (i.e., an 80% success rate); thus, our overall objective has been met.

MCFRS **FIRST-ARRIVING UNIT** FY17 BASELINE VS FY16 BASELINE TOTAL RESPONSE TIME BY DENSITY ZONE AT 90th PERCENTILE PERFORMANCE LEVEL (EVALUATION OF WHETHER 3% PERFORMANCE OBJECTIVE WAS MET)

Program	METROPOLITAN			URBAN			SUBURBAN			RURAL			COUNTYWIDE		
	FY17 BL	FY16 BL	Δ - Gap	FY17 BL	FY16 BL	Δ - Gap	FY17 BL	FY16 BL	Δ - Gap	FY17 BL	FY16 BL	Δ - Gap	FY17BL	FY16BL	Δ - Gap
Fire-Full Assignment (FFA-HY)	9:11 (422)	9:08 (507)	0:03	10:03 (35)	9:21 (52)	0:39	10:43 (32)	9:04 (45)	1:39	9:48 (42)	11:30 (32)	-1:42	9:34 (531)	9:17 (636)	0:17
Fire-Full Assignment – High-rise(FFA-SRHR)	9:12 (46)	8:33 (68)	0:39	N/A	N/A	N/A	6:24 (1)	N/A	N/A	N/A	7:12 (2)	N/A	9:12 (47)	8:18 (70)	0:54
Fire-Full Assignment – Non-Hydranted (FFA-NH)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	10:21 (1)	N/A	13:43 (24)	13:22 (29)	0:21	13:43 (24)	13:20 (30)	0:23
Adaptive 1- Fire (A1F)	12:20	11:42	0:38	13:58	15:17	-1:19	12:58	13:33	-0:35	15:38	16:52	-1:14	13:24	13:17	0:07
Adaptive 1- Non-Fire (A1N)	10:14	10:16	-0:02	11:18	11:15	0:03	11:14	11:24	-0:10	14:26	14:25	0:01	10:51	11:03	-0:12
Adaptive 2-3 (A2-3)	9:24	9:33	-0:09	10:28	10:35	-0:07	10:32	11:04	-0:32	12:55	15:07	-2:12	9:51	9:58	-0:07

TRT = Total Response Time (PtoD + Turnout + Travel)

BL-Baseline

BM-Benchmark

N/A – not applicable

(#) Incident count – based on number of incidents where all needed timestamps were available to calculate the TRT. Count not provided when >100 except for FFA-HY

Metro & County. **Red font:** increase $\leq 3\%$

Red shading: increase >3%

Green font: decrease $\leq 3\%$

Green shading: decrease >3%

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: Fire Suppression Program / Determination if Total Response Time Performance Objectives Met

In the ERF table, there are 3 of 20* cells pertaining to fire suppression shaded red; thus, only 15% of the cells indicate a failure to meet the objective (i.e., an 85% success rate).

*The A1F & A1N programs are not applicable for ERF because they are single-unit responses; therefore, these 10 cells are left out, thus leaving 20 applicable cells.

MCFRS **EFFECTIVE RESPONSE FORCE** FY17 BASELINE VS FY16 BASELINE TOTAL RESPONSE TIME BY DENSITY ZONE AT 90th PERCENTILE PERFORMANCE LEVEL

Program	METROPOLITAN			URBAN			SUBURBAN			RURAL			COUNTYWIDE		
	FY17 BL	FY16 BL	Δ-Gap	FY17 BL	FY16 BL	Δ-Gap	FY17 BL	FY16 BL	Δ-Gap	FY17 BL	FY16 BL	Δ-Gap	FY17BL	FY16BL	Δ-Gap
Fire-Full Assignment (FFA-HY)	20:55 (149)	21:55 (172)	-1:00	20:10 (16)	24:01 (19)	-3:51	25:10 (13)	23:34 (25)	1:36	18:49 (20)	23:32 (12)	-4:43	20:39 (198)	22:56 (228)	-2:17
Fire-Full Assignment – High-rise (FFA-SRHR)	19:28 (9)	21:46 (17)	-2:18	N/A	N/A	N/A	N/A	N/A	N/A	N/A	11:34 (1)	N/A	19:28 (9)	21:46 (18)	-2:18
Fire-Full Assignment – Non-Hydranted (FFA-NH)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	52:00 (8)	32:41 (15)	19:19	52:00 (8)	32:41 (16)	19:19
Adaptive 1- Fire (A1F)*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Adaptive 1- Non-Fire (A1N)*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Adaptive 2-3 (A2-3)	12:20	12:35	-0:15	13:50	13:33	0:17	13:45	13:21	0:24	15:32	17:17	-1:45	12:54	13:10	-0:16

TRT = Total Response Time (PtoD + Turnout + Travel)

BL-Baseline

BM-Benchmark

N/A – not applicable

(#) Incident count – based on number of incidents where all needed timestamps were available to calculate the TRT. Count not provided when >100 except for FFA-HY Metro & County.

Red font: increase ≤3%

Red shading: increase >3%

Green font: decrease ≤3%

Green shading: decrease >3%

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: EMS Program / Determination if Total Response Time Performance Objectives Met

In the First-Arriving Unit table, there is 1 of 15 cells pertaining to the EMS program shaded red; thus, only 6.6% of the cells indicate a failure to meet the objective (i.e., a 93.4% success rate). Since $\geq 70\%$ of the cells are not shaded red, then our overall EMS FY 17 First-Arriving Unit objective has been met.

MCFRS **FIRST-ARRIVING UNIT** FY17 BASELINE VS FY16 BASELINE TOTAL RESPONSE TIME BY DENSITY ZONE AT 90th PERCENTILE PERFORMANCE LEVEL (EVALUATION OF WHETHER 3% PERFORMANCE OBJECTIVE WAS MET)

Program	COUNTYWIDE			METROPOLITAN			URBAN			SUBURBAN			RURAL		
	FY17 BL	FY16 BL	Δ-Gap	FY17 BL	FY16 BL	Δ-Gap	FY17 BL	FY16 BL	Δ - Gap	FY17 BL	FY16 B	Δ-Gap	FY17BL	FY16BL	Δ-Gap
Advanced Life Support 1 (ALS1)	10:33	10:44	-0:11	11:22	11:27	-0:05	11:33	11:36	-0:03	12:44	13:02	-0:18	10:54	11:05	-0:11
Advanced Life Support 2 (ALS2)	9:55	9:45	0:10	10:11	10:18	-0:07	10:38	10:44	-0:06	12:49	11:51	0:58	10:14	10:06	0:08
Basic Life Support (BLS)	11:42	11:44	-0:02	12:42	12:35	0:07	12:24	12:17	0:07	13:46	13:41	0:05	12:02	12:03	-0:01

TRT = Total Response Time (PtoD + Turnout + Travel)

BL-Baseline

BM-Benchmark

N/A – not applicable

(#) Incident count – based on number of incidents where all needed timestamps were available to calculate the TRT. Count not provided when >100 except for FFA-HY Metro & County.

Red font: increase $\leq 3\%$

Red shading: increase >3%

Green font: decrease $\leq 3\%$

Green shading: decrease >3%

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Risk Category: EMS Program / Determination if Total Response Time Performance Objectives Met

In the ERF table, there are 4 of 15 cells pertaining to the EMS program shaded red; thus, 27% of the cells indicate a failure to meet the objective (i.e., a 73% success rate). Since $\geq 70\%$ of the cells are not shaded red, then our overall EMS FY17 ERF objective has been met.

MCFRS **EFFECTIVE RESPONSE FORCE** FY17 BASELINE VS FY16 BASELINE TOTAL RESPONSE TIME BY DENSITY ZONE AT 90th PERCENTILE PERFORMANCE LEVEL

Program	COUNTYWIDE			METROPOLITAN			URBAN			SUBURBAN			RURAL		
	FY17 BL	FY16 BL	Δ-Gap	FY17 BL	FY16 BL	Δ-Gap	FY17 BL	FY16 BL	Δ-Gap	FY17 BL	FY16 BL	Δ-Gap	FY17BL	FY16BL	Δ-Gap
Advanced Life Support 1 (ALS1)	11:52	12:11	-0:19	12:48	13:08	-0:20	12:56	13:00	-0:04	14:22	15:12	-0:50	12:16	12:37	-0:21
Advanced Life Support 2 (ALS2)	12:14	11:41	0:33	12:09	12:59	-0:50	12:46	12:00	0:46	16:42	13:53	2:52	12:39	12:05	0:34
Basic Life Support (BLS)	12:27	12:27	0:00	13:35	13:38	-0:03	13:21	13:28	-0:07	14:52	14:46	0:06	12:51	12:53	-0:02

TRT = Total Response Time (PtoD + Turnout + Travel)

BL-Baseline

BM-Benchmark

N/A – not applicable

(#) Incident count – based on number of incidents where all needed timestamps were available to calculate the TRT. Count not provided when >100 except for FFA-HY Metro & County.

Red font: increase $\leq 3\%$

Red shading: increase $> 3\%$

Green font: decrease $\leq 3\%$

Green shading: decrease $> 3\%$

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Service Delivery Total Response Time Continuum Assessment by RMZs [2C.6]

As described in 2C.5, MCFRS has identified, and will continue identifying, total response time (TRT) for delivery of services as the summation of three component times: call processing time, turnout time and travel time. Each component time, as well as TRT, is documented and analyzed at the 90th percentile for each of the department's 21 emergency service programs, broken down by the four population density zones used by MCFRS. Call processing time, turnout time, travel time and TRT are documented for first-arriving unit and for the effective response force (ERF) as referenced below.

The department assesses TRTs for these service programs mostly by population density zone (four separate zones) and county-wide and to a lesser extent by station area (i.e., 35 separate fire station areas) and by risk management zone (i.e., fire box area). Due to the large number of risk management zones (RMZs) – there are 850 - in the County, the department only assesses TRTs by select RMZs such as those associated with an area under consideration for a new station or additional resources, an area of particularly high risk, or an area experiencing a significant issue requiring in-depth analysis.

In an effort to convey to the reader MCFRS' commitment to in-depth and routine analysis and reporting of each component of the response time continuum, the following five pages of Crystal Report screenshots are provided. The significant investment into the development of these sophisticated reports, that quickly analyze millions of records to produce the analysis, confirm the importance to the agency of being able to assess and compare baseline times (at the 90th percentile fractal) to benchmark targets, which assists in defining opportunities for improvement. Each of the following five pages presents a five-year analysis of reported moderate risk structure fires (Adaptive 2-3 [A2-3]), which have a response assignment of two engines and one special service unit, in Station 1's and Station 2's RMZs and Station Response Area planning zones. The first page is phone to dispatch, the second turnout, the third travel, and the fourth total response time. The fifth page is the ERF times. An A2-3 analysis within each geographic density zone is also provided on each page.

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Accreditation First Arriving Phone to Dispatch

Incident Date: 01/01/2013 To 12/31/2017
Program: PHONETODISP

<u>Geographic Type</u>	<u>*Total Incident Count</u>	<u>Program Type</u>	<u>Measure Type</u>	<u>Response Time</u>	<u>Response Time Sec</u>
0101	104	Adaptive2_3	90	00:03:36	216
0102	172	Adaptive2_3	90	00:03:30	210
0103	43	Adaptive2_3	90	00:03:58	238
0104	21	Adaptive2_3	90	00:02:31	151
0105	8	Adaptive2_3	90	00:02:35	155
0106	40	Adaptive2_3	90	00:02:52	172
0107	58	Adaptive2_3	90	00:03:22	202
0108	7	Adaptive2_3	90	00:05:25	325
0110	42	Adaptive2_3	90	00:03:11	191
0201	2	Adaptive2_3	90	00:04:11	251
0202	38	Adaptive2_3	90	00:03:30	210
0203	34	Adaptive2_3	90	00:03:29	209
0204	36	Adaptive2_3	90	00:03:23	203
0205	28	Adaptive2_3	90	00:04:05	245
0206	32	Adaptive2_3	90	00:03:37	217
0207	26	Adaptive2_3	90	00:03:52	232
0208	54	Adaptive2_3	90	00:04:11	251
0209	97	Adaptive2_3	90	00:03:32	212
0210	13	Adaptive2_3	90	00:04:20	260
0213	3	Adaptive2_3	90	00:02:36	156
0214	9	Adaptive2_3	90	00:04:10	250

Accreditation First Arriving Phone to Dispatch

Incident Date: 01/01/2013 To 12/31/2017
Program: PHONETODISP

<u>Geographic Type</u>	<u>*Total Incident Count</u>	<u>Program Type</u>	<u>Measure Type</u>	<u>Response Time</u>	<u>Response Time Sec</u>
01	495	Adaptive2_3	90	00:03:30	210
02	372	Adaptive2_3	90	00:03:37	217

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Accreditation First Arriving Phone to Dispatch

Incident Date: 01/01/2013 To 12/31/2017
Program: PHONETODISP

<u>Geographic Type</u>	<u>*Total Incident Count</u>	<u>Program Type</u>	<u>Measure Type</u>	<u>Response Time</u>	<u>Response Time Sec</u>
Metropolitan	8,130	Adaptive2_3	90	00:03:28	208
Rural	687	Adaptive2_3	90	00:03:37	217
Suburban	711	Adaptive2_3	90	00:03:21	201
Urban	658	Adaptive2_3	90	00:03:26	206

Accreditation All Units Turnout Response

Incident Date: 01/01/2013 To 12/31/2017
Program: TURNOUT

<u>Geographic Type</u>	<u>*Total Incident Count</u>	<u>Program Type</u>	<u>Measure Type</u>	<u>Response Time</u>	<u>Response Time Sec</u>
0101	333	Adaptive2_3	90	00:01:58	118
0102	581	Adaptive2_3	90	00:01:46	106
0103	135	Adaptive2_3	90	00:01:52	112
0104	66	Adaptive2_3	90	00:01:50	110
0105	23	Adaptive2_3	90	00:02:27	147
0106	119	Adaptive2_3	90	00:01:41	101
0107	176	Adaptive2_3	90	00:01:53	113
0108	20	Adaptive2_3	90	00:01:45	105
0110	166	Adaptive2_3	90	00:01:58	118
0201	20	Adaptive2_3	90	00:01:19	79
0202	98	Adaptive2_3	90	00:01:45	105
0203	88	Adaptive2_3	90	00:02:21	141
0204	60	Adaptive2_3	90	00:01:45	105
0205	62	Adaptive2_3	90	00:01:38	98
0206	92	Adaptive2_3	90	00:01:48	108
0207	69	Adaptive2_3	90	00:01:56	116
0208	165	Adaptive2_3	90	00:01:51	111
0209	277	Adaptive2_3	90	00:01:43	103
0210	39	Adaptive2_3	90	00:01:47	107
0213	6	Adaptive2_3	90	00:04:11	251
0214	25	Adaptive2_3	90	00:02:35	155

Accreditation All Units Turnout Response

Incident Date: 01/01/2013 To 12/31/2017
Program: TURNOUT

<u>Geographic Type</u>	<u>*Total Incident Count</u>	<u>Program Type</u>	<u>Measure Type</u>	<u>Response Time</u>	<u>Response Time Sec</u>
01	1,619	Adaptive2_3	90	00:01:52	112
02	1,001	Adaptive2_3	90	00:01:49	109

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Accreditation All Units Turnout Response

Incident Date: 01/01/2013 To 12/31/2017
Program: TURNOUT

<u>Geographic Type</u>	<u>*Total Incident Count</u>	<u>Program Type</u>	<u>Measure Type</u>	<u>Response Time</u>	<u>Response Time Sec</u>
Metropolitan	24,491	Adaptive2_3	90	00:02:03	123
Rural	2,721	Adaptive2_3	90	00:02:28	148
Suburban	2,327	Adaptive2_3	90	00:02:12	132
Urban	2,093	Adaptive2_3	90	00:02:10	130

Accreditation First Arriving Travel Response

Incident Date: 01/01/2013 To 12/31/2017
Program: TRAVEL

<u>Geographic Type</u>	<u>*Total Incident Count</u>	<u>Program Type</u>	<u>Measure Type</u>	<u>Response Time</u>	<u>Response Time Se</u>
0101	106	Adaptive2_3	90	00:03:35	215
0102	177	Adaptive2_3	90	00:03:33	213
0103	44	Adaptive2_3	90	00:04:05	245
0104	23	Adaptive2_3	90	00:04:24	264
0105	8	Adaptive2_3	90	00:06:22	382
0106	41	Adaptive2_3	90	00:03:42	222
0107	56	Adaptive2_3	90	00:04:13	253
0108	7	Adaptive2_3	90	00:06:09	369
0110	44	Adaptive2_3	90	00:03:49	229
0201	2	Adaptive2_3	90	00:03:39	219
0202	37	Adaptive2_3	90	00:04:34	274
0203	34	Adaptive2_3	90	00:04:50	290
0204	36	Adaptive2_3	90	00:04:34	274
0205	28	Adaptive2_3	90	00:04:38	278
0206	32	Adaptive2_3	90	00:03:49	229
0207	26	Adaptive2_3	90	00:05:34	334
0208	55	Adaptive2_3	90	00:04:29	269
0209	96	Adaptive2_3	90	00:04:18	258
0210	13	Adaptive2_3	90	00:03:38	218
0213	3	Adaptive2_3	90	00:02:57	177
0214	9	Adaptive2_3	90	00:05:14	314

Accreditation First Arriving Travel Response

Incident Date: 01/01/2013 To 12/31/2017
Program: TRAVEL

<u>Geographic Type</u>	<u>*Total Incident Count</u>	<u>Program Type</u>	<u>Measure Type</u>	<u>Response Time</u>	<u>Response Time Sec</u>
01	506	Adaptive2_3	90	00:03:53	233
02	371	Adaptive2_3	90	00:04:32	272

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Accreditation First Arriving Travel Response

Incident Date: 01/01/2013 To 12/31/2017
Program: TRAVEL

<u>Geographic Type</u>	<u>*Total Incident Count</u>	<u>Program Type</u>	<u>Measure Type</u>	<u>Response Time</u>	<u>Response Time Sec</u>
Metropolitan	8,238	Adaptive2_3	90	00:05:19	319
Rural	690	Adaptive2_3	90	00:09:01	541
Suburban	714	Adaptive2_3	90	00:06:15	375
Urban	659	Adaptive2_3	90	00:06:40	400

Accreditation First Arriving Total Response

Incident Date: 01/01/2013 To 12/31/2017
Program: TOTAL_RESPONSE

<u>Geographic Type</u>	<u>*Total Incident Count</u>	<u>Program Type</u>	<u>Measure Type</u>	<u>Response Time</u>	<u>Response Time Sec</u>
0101	104	Adaptive2_3	90	00:08:02	482
0102	171	Adaptive2_3	90	00:07:02	422
0103	43	Adaptive2_3	90	00:07:56	476
0104	21	Adaptive2_3	90	00:08:19	499
0105	8	Adaptive2_3	90	00:10:43	643
0106	39	Adaptive2_3	90	00:08:18	498
0107	56	Adaptive2_3	90	00:07:48	468
0108	7	Adaptive2_3	90	00:09:33	573
0110	40	Adaptive2_3	90	00:08:04	484
0201	2	Adaptive2_3	90	00:07:21	441
0202	37	Adaptive2_3	90	00:08:58	538
0203	34	Adaptive2_3	90	00:09:21	561
0204	36	Adaptive2_3	90	00:08:37	517
0205	28	Adaptive2_3	90	00:08:42	522
0206	32	Adaptive2_3	90	00:07:36	456
0207	25	Adaptive2_3	90	00:09:27	567
0208	54	Adaptive2_3	90	00:08:58	538
0209	96	Adaptive2_3	90	00:08:11	491
0210	13	Adaptive2_3	90	00:08:56	536
0213	3	Adaptive2_3	90	00:09:02	542
0214	9	Adaptive2_3	90	00:08:53	533

Accreditation First Arriving Total Response

Incident Date: 01/01/2013 To 12/31/2017
Program: TOTAL_RESPONSE

<u>Geographic Type</u>	<u>*Total Incident Count</u>	<u>Program Type</u>	<u>Measure Type</u>	<u>Response Time</u>	<u>Response Time Sec</u>
01	489	Adaptive2_3	90	00:07:59	479
02	369	Adaptive2_3	90	00:08:53	533

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Accreditation First Arriving Total Response

Incident Date: 01/01/2013 To 12/31/2017
Program: TOTAL_RESPONSE

<u>Geographic Type</u>	<u>*Total Incident Count</u>	<u>Program Type</u>	<u>Measure Type</u>	<u>Response Time</u>	<u>Response Time Sec</u>
Metropolitan	8,063	Adaptive2_3	90	00:09:18	558
Rural	652	Adaptive2_3	90	00:13:18	798
Suburban	699	Adaptive2_3	90	00:10:15	615
Urban	648	Adaptive2_3	90	00:10:35	635

Accreditation ERF Total Response

Incident Date: 01/01/2013 To 12/31/2017
Program: ERF_TOTAL_RESPONSE

<u>Geographic Type</u>	<u>*Total Incident Count</u>	<u>Program Type</u>	<u>Measure Type</u>	<u>Response Time</u>	<u>Response Time Sec</u>
0101	86	Adaptive2_3	90	00:11:02	662
0102	147	Adaptive2_3	90	00:09:31	571
0103	36	Adaptive2_3	90	00:14:28	868
0104	17	Adaptive2_3	90	00:09:55	595
0105	8	Adaptive2_3	90	00:30:31	1,831
0106	34	Adaptive2_3	90	00:09:29	569
0107	41	Adaptive2_3	90	00:12:25	745
0108	6	Adaptive2_3	90	00:10:14	614
0110	37	Adaptive2_3	90	00:12:01	721
0201	2	Adaptive2_3	90	00:09:18	558
0202	28	Adaptive2_3	90	00:14:23	863
0203	27	Adaptive2_3	90	00:12:35	755
0204	28	Adaptive2_3	90	00:11:43	703
0205	15	Adaptive2_3	90	00:11:28	688
0206	16	Adaptive2_3	90	00:14:39	879
0207	10	Adaptive2_3	90	00:16:35	995
0208	45	Adaptive2_3	90	00:11:09	669
0209	71	Adaptive2_3	90	00:12:02	722
0210	9	Adaptive2_3	90	00:17:15	1,035
0213	2	Adaptive2_3	90	00:12:08	728
0214	8	Adaptive2_3	90	00:10:37	637

Accreditation ERF Total Response

Incident Date: 01/01/2013 To 12/31/2017
Program: ERF_TOTAL_RESPONSE

<u>Geographic Type</u>	<u>*Total Incident Count</u>	<u>Program Type</u>	<u>Measure Type</u>	<u>Response Time</u>	<u>Response Time Sec</u>
01	412	Adaptive2_3	90	00:10:35	635
02	261	Adaptive2_3	90	00:12:40	760

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Accreditation ERF Total Response

Incident Date: 01/01/2013 To 12/31/2017
Program: ERF_TOTAL_RESPONSE

<u>Geographic Type</u>	<u>*Total Incident Count</u>	<u>Program Type</u>	<u>Measure Type</u>	<u>Response Time</u>	<u>Response Time Sec</u>
Metropolitan	5,867	Adaptive2_3	90	00:12:41	761
Rural	415	Adaptive2_3	90	00:16:35	995
Suburban	473	Adaptive2_3	90	00:14:16	856
Urban	434	Adaptive2_3	90	00:14:38	878

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

MCFRS Processes to Maintain & Improve Service Delivery Performance [CC 2C.7]

MCFRS has identified and implemented many initiatives during the past five years to maintain and improve its performance in emergency services' delivery. The most significant initiatives include the following, some of which are ongoing:

- Increase of ALS and BLS capacity: Upgraded 5 engines (i.e., Engines 705, 710, 711, 726, 740) to paramedic engines; began the multi-year conversion of medic units to paramedic chase units (e.g., Medic 741→ALS741, Medic 742→ALS742) while retaining the former medic units as BLS transport units; placed Ambulance 706 in service (i.e., new service at Station 6).
- Continued implementation of 4-person staffing: Upgraded 5 three-person engines (i.e., Engines 705, 710, 711, 726, 740) to four personnel, including a firefighter-paramedic. 33 of 35 engines now have 4-person staffing.
- Additional stations: Opened Travilah Station 32 (with paramedic engine and ambulance) in 2014 to better serve the Travilah, Traville, western Rockville, King Farm and Crown communities. Began the planning phase for Montgomery Village Station 39 that will improve response time in the Village and reduce the call load of Station 8 – the County's busiest station.
- Public Safety Systems Modernization (PSSM): Assisted the Department of Technology Services (DTS) with implementation of the new PremierOne CAD system and new Fire Station Alerting system. Currently assisting DTS with implementation of the new P25-compliant radio system.
- Special Operations Improvements: New apparatus (i.e., 2nd Technical Rescue Team vehicle, 2nd command post, replacement of boat fleet with Demaree Inflatable Boats - Chesapeake and Rescue Sled models); standardization of equipment on boats and boat support units; increased on-duty staffing of Technical Rescue Team (i.e., from 1 to 8 personnel) and Swift Water Team (from 1 operator and 1 crew member at both Stations 10 and 30 to 2 operators and 2 crew members at both stations); replacement of atmospheric monitors and detectors on Hazmat units and engines, aerials and rescue squads; addition of CO

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

- detectors on BLS and ALS jump bags; addition of 5-gas detectors with photo ionization detector for Battalion Chiefs and Safety Officers.
- New Training Academy: Opened the new Fire-Rescue Training Academy in October 2016 with improved, expanded and modernized facilities for training of career and volunteer firefighters and EMS providers.
 - New Policies: Implemented two key departmental policies impacting performance, including Incident Response Policy #24-01 and Apparatus Staffing Policy #25-08AMII.
 - Improve ISO Rating: The County's Insurance Services Office (ISO) rating improved to Class 2 (from Class 3) in urban/hydranted areas and improved to Class 4 (from Class 6) in rural/non-hydranted areas based upon a 2016 evaluation by the ISO.

In addition to all of the aforementioned documented efforts of maintaining and improving performance, another example is the recategorization of CAD Fire Priority Dispatch™ System "Light Smoke Condition" determinants. Through rigorous performance analysis, the Operations Division determined that CAD call types with the determinant suffix "K" (light smoke) could be recategorized from reported high-risk structure fires to moderate-risk structure fires. Changing the response plan to these event types from a Fire Full Assignment-FFA (5-engines, 2-trucks, 1-rescue squad, 2-chiefs, and 1-EMS transport unit) to an Adaptive 2-3 assignment (2-engines and 1-truck or 1-rescue squad) reduced the high-risk, robust FFA assignment by approximately 200+ incidents per year. Since MCFRS' all-hazard service delivery model relies on 33 paramedic engine companies (out of 35 total engine companies) to help provide ALS response, reducing over two hundred incidents per year allowed a majority of those paramedic engines and ALS and BLS transport units to remain in service in their communities. Through this analysis and programmatic change, MCFRS believes it was able to help maintain total response times to numerous programs even though annual calls for service continue to increase. It should be noted that light smoke call types in high-hazard occupancies were not changed.

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

MCFRS' Emergency Response System Resiliency Doctrines [2C.8]

MCFRS demonstrates its resiliency through execution of comprehensive departmental policies, procedures and best-practices and then assesses this resiliency. The department's resiliency is regularly demonstrated during periods of peak demand call load, concurrent major incidents, and severe weather events as well as during planned special events occurring in the County. When the service delivery system is being stressed under one or more of these circumstances, the department minimizes the increased level of risk by executing the following policies, procedures and practices:

- Apparatus Transfers – As station resources become depleted due to deployments, similar apparatus is temporarily transferred from other areas of the County (and sometimes from out of County – see below) to provide coverage so that service objectives are achieved to the greatest extent possible.
- Mutual Aid – MCFRS has automatic or mutual aid agreements with the five federal fire departments located within Montgomery County plus fire departments from other jurisdictions within the National Capital Region. These neighboring resources can be called upon at any time for quick and reliable response, with occasional exceptions (e.g., major winter storm impacting entire region limiting apparatus mobility).
- “Condition Red” – Allows for temporary reduced apparatus assignments within the County when the system is being challenged to its maximum such as during a major weather event (e.g., blizzard, ice storm, severe thunderstorm), major fire-rescue incident (e.g., multi-alarm incident, mass casualty incident) or concurrent major incidents. When conditions improve, normal apparatus assignments are once again dispatched.
- Increased Staffing - For planned/anticipated events such as tropical storms, winter storms or special events (e.g., charity walkathon, professional golf tournament), the department often places additional staff on frontline apparatus and/or staffs reserve apparatus with both career and volunteer personnel to handle the increased call load and greater complexity of incidents. Call-back of off-duty personnel and/or holdover of personnel beyond their assigned shift may be required.

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

The department's resiliency is assessed by analyzing performance through response time measures, EMS measures and any feedback provided by customers. Should performance be found to have been unacceptable, the department analyzes the reasons and then initiates actions to improve performance and improve resiliency.

CFAI, within Section 3 of the 6th edition *Community Risk Assessment: Standards of Cover* manual, describes the following concepts, which, if employed, will assist a fire department to "...quickly recover from an incident or events, or to adjust easily to changing needs or requirements."

Resistance is a fire-rescue agency's ability to deploy only the resources it deems necessary to safely and effectively control an incident and bring it to termination. Section 3 of the 6th edition manual also explains ways to assure the resistance concept is attained:

- The importance of reliability and consistently delivering services within performance expectations.
- The importance of conducting a quality risk-assessment and critical task analysis to assure essential resources are deployed based on the level of risk.
- An evaluation of historical workloads within first-due (upper level planning zones) and ERF levels to determine possible opportunities to reduce some resource deployments.

Absorption is a fire department's ability to quickly add resources to maintain service levels during high demand times and/or when long-term large-scale incidents reduce normal operating capabilities. Some considerations to help with absorption:

- Automatic/mutual aid
- Personnel call-back procedures, and
- Incident prevention.

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Restoration is the rapid return of resources to their ability to respond again to other emergency calls, both during daily operations and during times/incidents which tax the emergency services system. Ways in which an agency can assure restoration of their emergency response resources:

- Maintaining expectations of rapid return to service of resources through policy and procedures
- Mutual aid station transfers/backfills.

MCFRS assures its emergency response system resiliency which has been articulated within this Performance Indicator's description within the MCFRS self-assessment manual and has been presented in the beginning of this section of this CRA/SOC.

MCFRS has documented in other sections of this CRA/SOC manual examples of how it employs the concepts of resistance, absorption, and restoration to help it “spring back to normalcy” and thus maintain its resiliency.

For example, the reader is encouraged to review Section 2C.3 where MCFRS documents its practice of only deploying one engine company and one special service company to automatic fire alarms (AFA) in high-risk occupancies such as nursing homes and high-rise buildings (resistance). This decision is based on sound data analysis and risk assessment practices. Some fire departments opt to deploy more resources on these types of incidents. Other examples are included within the CC 2C.4 section where all the critical task analysis charts are offered as well as documentation on MCFRS' participation in NIST's residential fireground field time-to-task experiments. Incident prevention (absorption) examples are provided within section VI Description of Programs and Services and specially under the many CRR and Community Outreach initiatives MCFRS employs to [help “Prevent the 911 call...” see slide 13.](#)

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

IX. MCFRS Plan to Maintain & Improve Response Capabilities [Criterion 2D]

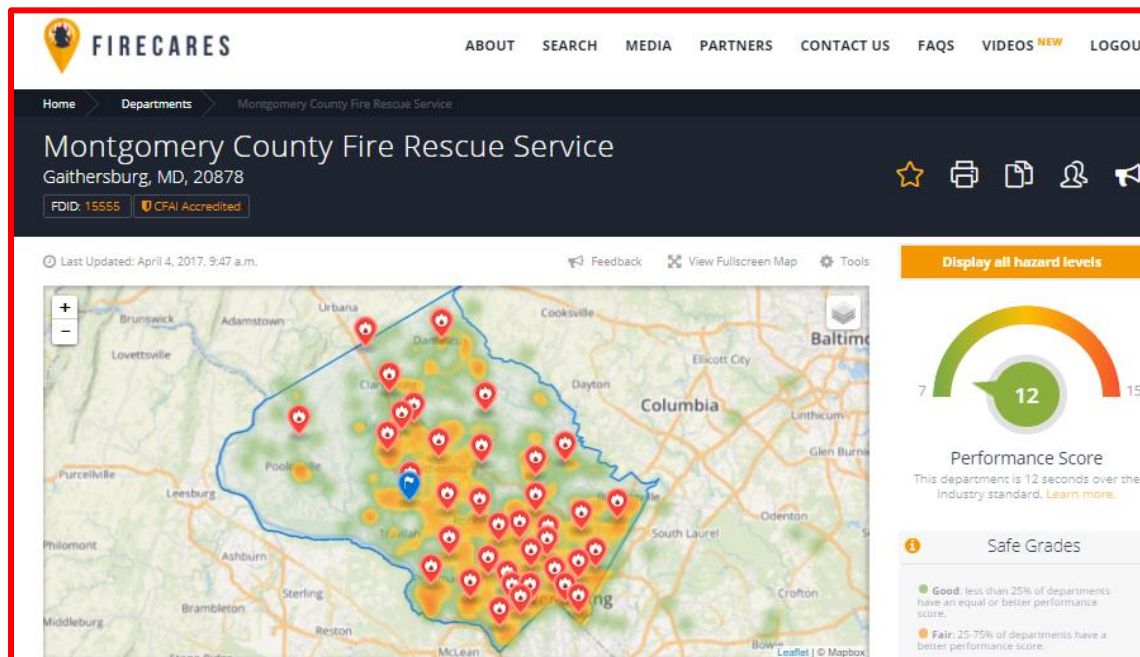
[CountyStat:](#)



Legend: Performance Improved / Optimal; Performance Consistent; Performance Declined; Measuring; Collecting Data;



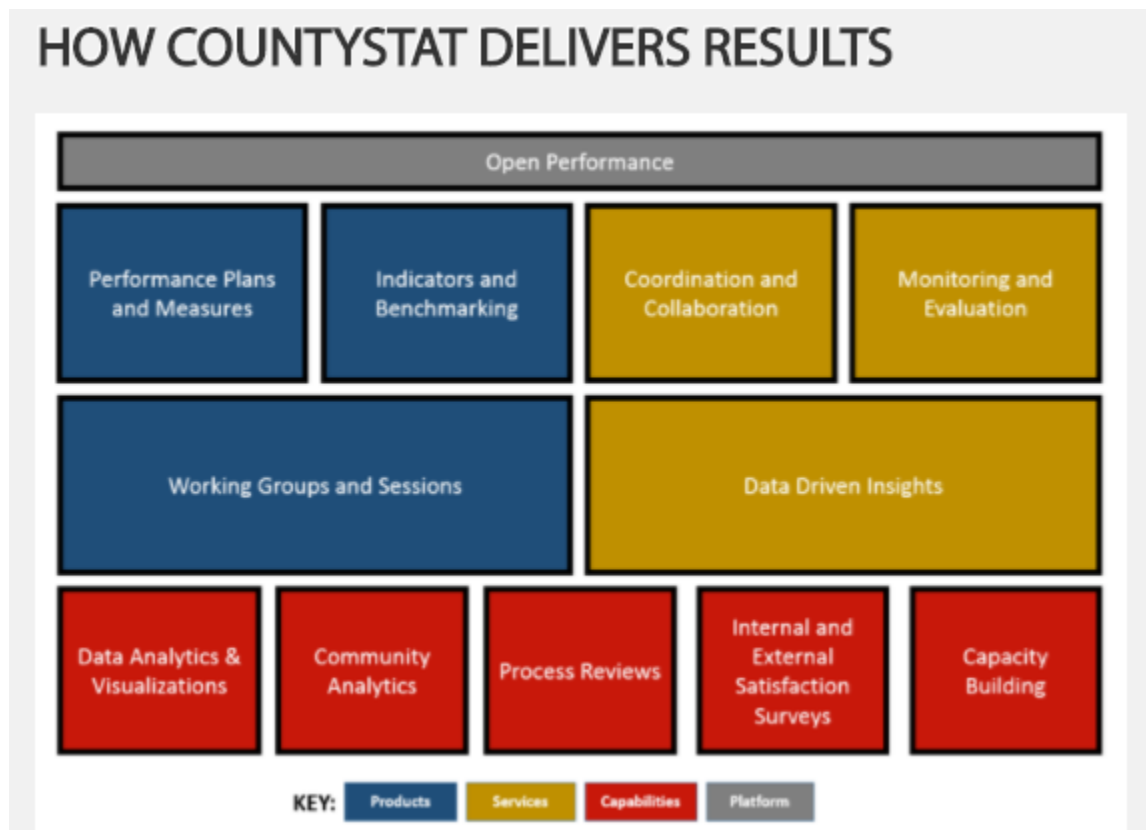
[FireCares:](#)



MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Methods for Assessing Performance and Opportunities for Improvement [CC 2D.1]

Assessment of the department’s performance adequacies, consistencies, reliabilities, and resiliencies is addressed and documented in departmental performance measures (i.e., “headline measures” and “supporting measures” per CountyStat nomenclature) and response time performance objectives as well as in performance dashboards prepared by the individual Sections comprising the five MCFRS Divisions. Additionally, program appraisals for SAM Category 5 programs are conducted annually by program managers.



A significant component to MCFRS’ documented and adopted methodologies for mission-critical performance assessment is the mandatory participation with the Montgomery County Performance Management and Data Analytics Team (a.k.a., “CountyStat”).

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

The following [CountyStat Principles and Background](#) overview are provided for the reader to understand how this process is critical and transparent to MCFRS' performance assessment methodologies:

COUNTYSTAT PRINCIPLES

Require Data-Driven Performance | Promote Strategic Governance | Increase Government Transparency | Foster a Culture of Accountability

BACKGROUND

CountyStat is the performance management and data analytics team within the Office of the County Executive of Montgomery County. Established in 2007 and serving under the Chief Administrative Officer (CAO), CountyStat uses data strategically to monitor, assess, and improve the effectiveness, efficiency, and performance of County services, solve problems, and develop targeted action plans and strategies to deliver results for our residents, businesses, and communities. CountyStat requires decisions, actions, and policies that are driven by the extensive use of data, quantitative and qualitative analysis, and outcome-focused performance management.

Beyond its oversight role, CountyStat functions as an internal consultant performing data analyses and developing long-term strategic initiatives, ensuring that our County government leverages its data to make smarter decisions and achieve better outcomes. CountyStat also champions accountability and transparency for our residents and employees. In addition to the focus on individual department performance, CountyStat is the forum to convene stakeholders when collaboration across organizational boundaries is needed to address "cross-cutting" multi-departmental efforts that share a common goal. Collectively, the CountyStat Office's work is designed to ensure, on behalf of the CAO, the development and growth of a culture of "managing for results" in Montgomery County.

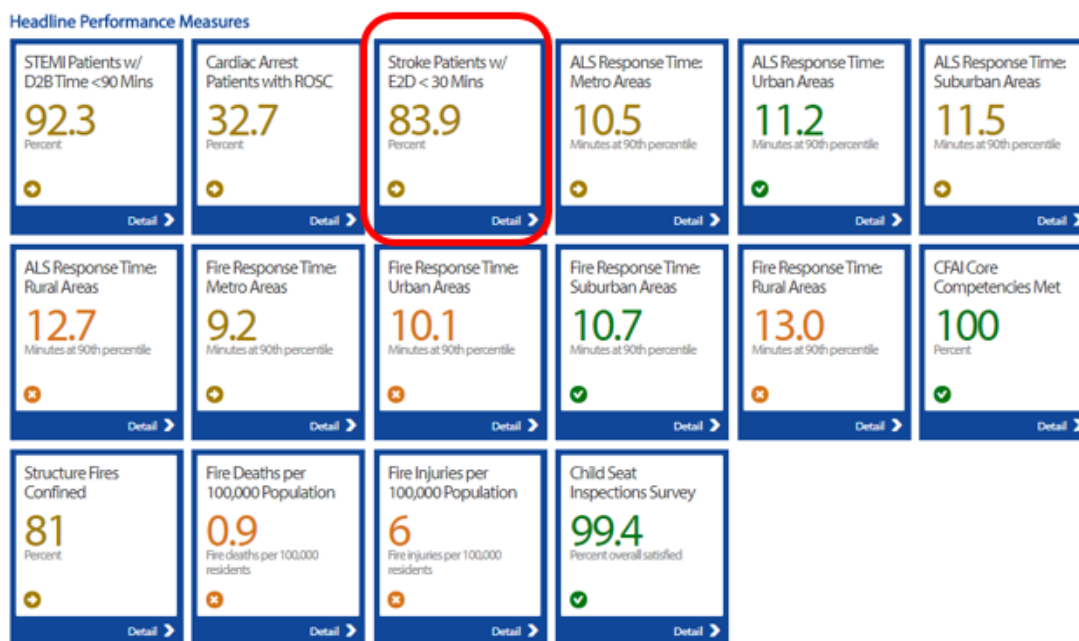
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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

The CountyStat framework also assists MCFRS in transparently documenting improvement methodologies within each of our headline measures.

The following example is provided for the reader and focuses on the MCFRS performance (headline) measure for Stroke Patients with an EMS to patient Delivery (“E2D”) to a primary stroke center in less than 30-minutes. Online viewers are encouraged to [link to this CountyStat webpage](#).

After the online user clicks on the appropriate dashboard tab, the online system reveals to internal and external customers/stakeholders why this measurement is important - *"Time is Brain."* The sooner a patient can be seen at a primary stroke care center, the greater likelihood that there will be no lasting effects of a stroke.



The viewer is then provided the following information regarding this measurement:

What factors are contributing to MCFRS' existing performance:

- Early identification of patients' stroke symptoms by EMS providers.
- MCFRS quality assurance (QA) program emphasizes the importance of rapidly beginning transport of stroke patients to the hospital.

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

What factors are restricting performance improvement:

- Behavior of individuals experiencing stroke - ignoring the signs, hesitating to call 911
- Demographic factors: Age, race/ethnicity, gender
- Patient stability: Signs/symptoms presented by the stroke patient upon arrival in the hospital emergency room can delay transfer to the CT lab.
- Traffic congestion, resulting in delayed transport of stroke patient to hospital

The viewer is then provided a MCFRS improvement plan:

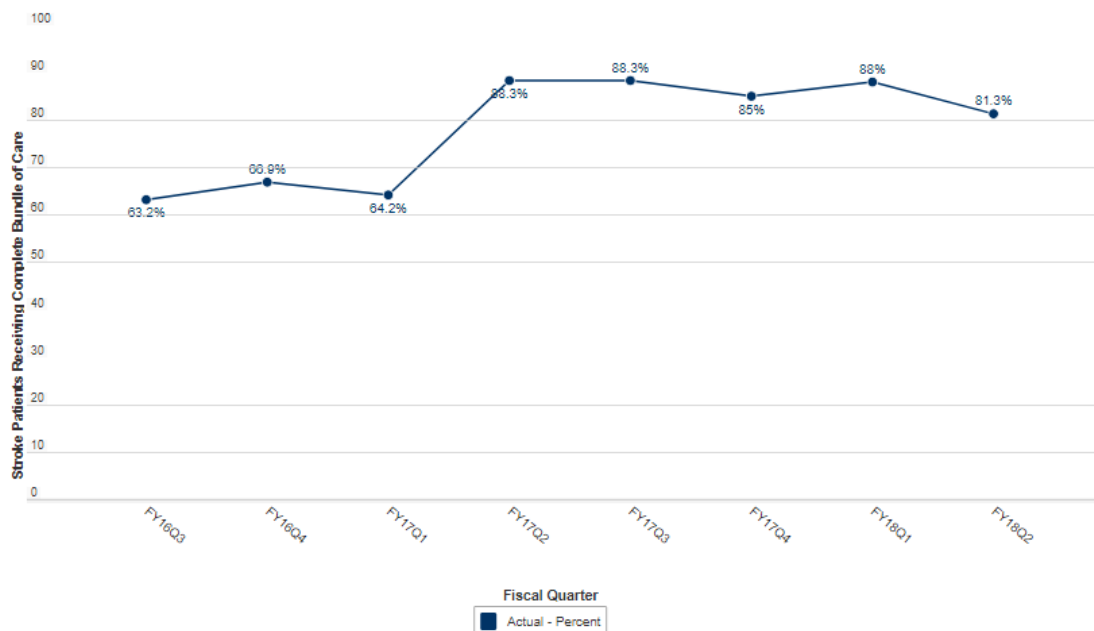
- MCFRS will continue providing feedback to its EMS providers on the importance of this measure.
- MCFRS will work collaboratively with Holy Cross-Germantown Hospital in its ongoing effort to gain primary stroke care center status. Addition of this primary stroke care center in Germantown should result in decreased transport times for stroke patients in the up-county area.
- MCFRS will work collaboratively with primary stroke care center hospitals who aspire to become comprehensive stroke care centers. There are currently no hospitals offering this level of service in Montgomery County.

The viewer is then provided the following “supporting measures” analysis:

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SUPPORTING MEASURES

Percentage of stroke patients receiving complete "bundle of care"



Note: Provision of the “bundle of care” to stroke patients includes: completion of stroke scale, recollection of time patient was last seen normal, recollection of blood glucose level, and notification of and transport to a designated stroke center.

This one example provides a clear understanding of MCFRS’ commitment to maintaining benchmark targets with the leveraging of [industry research and best practices](#) to assist with establishing those benchmarks.

In addition, this one example is supported by MCFRS’ commitment to quality assurance and narrowing the gap between baseline actual performance and benchmark target goals. The reader will see on the next page a screenshot from the Operations Division’s [EMS Blog](#) where providers are shared vital information and insights into improving quality of care and performance.

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

EMS Matters January 8, 2018

Pasted below are the documented key performance indices for last month. Again please remember we're striving to achieve at least 90% in each category, and I know that the consult percentage should be higher because I hear you consulting but you haven't documented it on your report. Please document it in the Procedures & Treatment section of the e-PCR.

Looking at the data from coded patients we've worked notice we finished the year with a ROSC of slightly over 34% which is about 3.4% better than last year. For the last 4 years our percentage of ROSC with cardiac arrest patients has continued to increase every year. Please keep up the excellent work!

	Scene <15 min	Average scene time	E2D <30 min	Average E2D time	Acquire 12-lead	Transmi t 12- lead	Consult		ASA
STEMI	85%	11:14	85%	21:11	92%	73%	85%		100%
Stroke	82.61%	11:30	84.06%	22:43		98.55%	76.81%	87	81.16%

MCFRS' commitment and compliance with this CFAI core competency is also displayed by providing the reader another example of a different component of its methodology. MCFRS, through robust planning and goal-tracking mandates, documents more granular division and section goals. The screenshot on the following page displays response time benchmark goals and references the industry standard NFPA 1710.

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

MCFRS DIVISIONS'/SECTIONS' GOALS AND OBJECTIVES – UPDATED JUNE 2016

Division/Section	Goal / Objective	Accreditation Criterion	FY17 FY18 FY19 FY20 FY21 FY22					
Operations /Field Ops	Ensure 4-person staffing for all primary suppression and heavy rescue units: <ul style="list-style-type: none"> Plan/budget for, hire, and train personnel to fill current vacancies and to meet future staffing requirements. Formally acknowledge 4-person staffing as being the minimum staffing requirement for engines, aerial units and rescue squads. 	5E, 5G		X		X		
Operations /Field Ops	Meet the accreditation program response time goals as set forth in the County Council-approved Fire, Rescue, EMS and Community Risk Reduction Master Plan as well as voluntary response time standards set forth by NFPA in Standard 1710: <ul style="list-style-type: none"> Maintain or construct fire stations in locations that best serve the public. Relocate or expand existing stations, and build additional stations as needed. 	2C, 5E, 5F, 5G, 5H, 5I, 5L					X	X
Operations /Field Ops	Meet the accreditation program response time goals for ALS as set forth in the County Council-approved MCFRS Master Plan as well as voluntary response time standards set forth by NFPA in Standard 1710: <ul style="list-style-type: none"> Achieve the goal of paramedic arrival on the scene of 90% of ALS calls within 8 minutes. Staff the remaining five 3-person engines with 4-persons, including a paramedic, at Stations 10, 11, and 26 (in FY17) and 2 and 20 (in FY19). 	2C, 5F	X		X	X	X	X
Operations /Field Ops	Improve ALS response time by minimizing the percentage of BLS patient care by paramedics: <ul style="list-style-type: none"> Strategically place ALS chase cars in service with one or two paramedics per chase car. [ALS chase cars will not normally be dispatched to BLS incidents nor will they transport patients] 	2C, 5F		X	X			

[Online viewers are encouraged to click on this link to be directed to this entire document](#)

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Quarterly Monitoring, Assessing, Reporting Delivery Outcomes & Actions [2D.2]

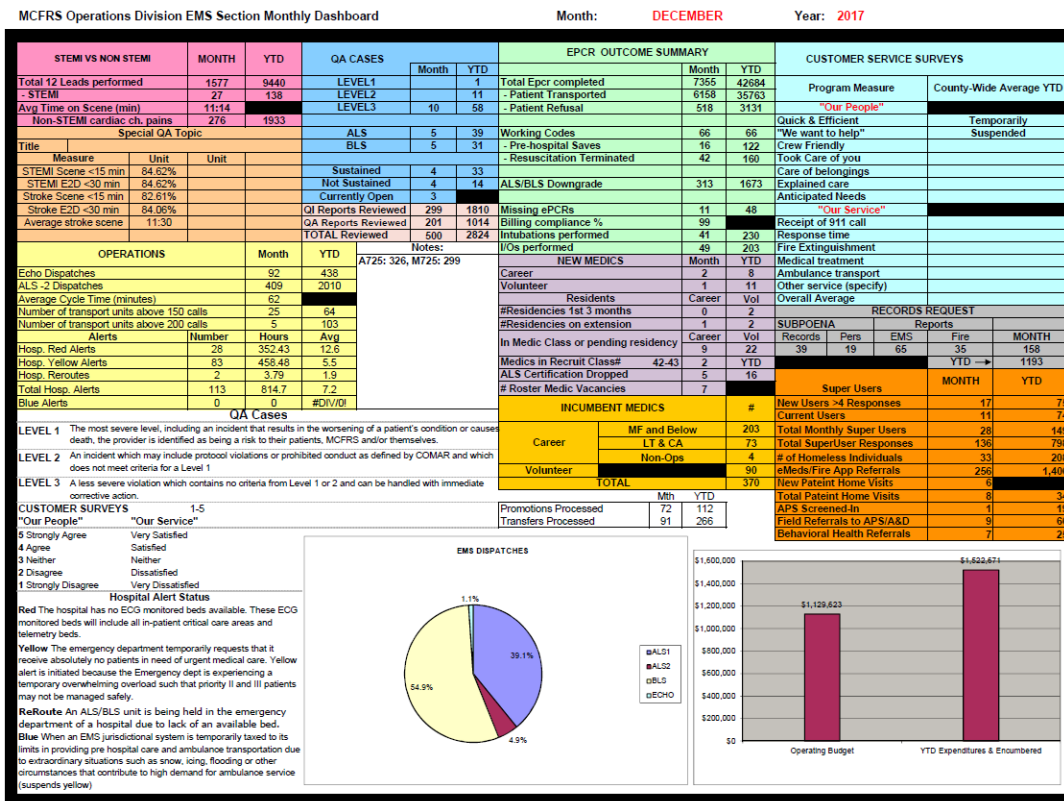
MCFRS continuously addresses this performance indicator by means of various internal reports as described below.

- Headline performance measures are tracked, assessed and reported quarterly to MCFRS managers and to the CountyStat Office. Most of the headline measures pertain to services provided by the Operations Division, including fire confinement, response times for ALS and fire-full assignment incidents, and provision of ALS services (i.e., services related to cardiac arrest, STEMI and stroke incidents). Performance for these headline measures is reported to the MCFRS leadership/management during quarterly briefings at the Public Safety Headquarters. Quarterly performance is also reported (electronically) to the CountyStat Office using their quarterly reporting template. When performance in one or more headline measures declines significantly from the previous quarter, or performance is trending negatively over several quarters, the Fire Chief tasks his senior staff to determine the reason(s) and to recommend remedial actions.

CountyStat examples are provided in the previous section (CC 2D.1) of this Community Risk Assessment/Standards of Cover (CRA/SOC) manual.

- Section managers prepare performance dashboards regarding their programs on a quarterly or, in some cases, monthly basis concerning the ability of the service delivery system to meet expected outcomes. Dashboards are presented during quarterly management team briefings and occasionally (per the discretion of each Division Chief) during Division Chiefs meetings with the Fire Chief to support an agenda item or related topic.

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The above screenshot is the Operations Division, EMS Section
2017-December Dashboard.

- MCFRS has four daily response time-related reports (covering the 24-hour period from 0700 to 0700 hours) that are generated and emailed to senior management, including:

- Response times for ALS2/Echo incidents
- Response times for Fire Full Assignment incidents
- Fractile response times
- Response times detail.

These reports are monitored by Operations Division managers and the MCFRS Accreditation Manager for how well actual performance is matching up to expected outcomes and to flag long response times for further examination to determine the causal factors.

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Examples of these reports are provided within the *Methodology for Monitoring Quality of Emergency Response Performance [CC 2C.2]* section of this CRA/SOC manual.

As articulated in the Center for Public Safety Excellence's 6th Edition Community Risk Assessment: Standards of Cover manual, "The regular and timely monitoring, assessment, and reporting of system performance is essential to ensure that the actual baseline performance times are maintained or improved over time."

This being quoted and in addition to the aforementioned provided examples, the Emergency Communications Center (ECC) provides weekly analysis pertaining to the emergency call-processing component of the total response time continuum. The responsibilities of monitoring, assessing, and reporting are within the ECC Professional Standards Unit.

ECC management and all telecommunicators, trainers, and support staff utilize the ECC internal web-based SharePoint site to collaborate, learn, share, and view call processing weekly performance. The weekly performance report measures core MCFRS programs and the page provides the stated MCFRS benchmark goals and NPFA standards for these types of core programs to compare. ECC management monitors performance trending, which assists with determining opportunities for improvement and decision-making processes to help solve more complex problems affecting performance and program quality and effectiveness.

Week 8 Stats

[Furst, Robert](#)

Calls dispatched: 2299

Phone to dispatch:

ALS2: 137.4 seconds

Echo: 143.6 seconds

Full Assignment: 139.4 seconds

Goal: 120 seconds MCFRS / 90 seconds NFPA

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[ALS2 Phone to Pending.pdf](#)
[ALS2 Pending to Dispatch.pdf](#)
[Echo Phone to Pending.pdf](#)
[Echo Pending to Dispatch.pdf](#)
[FA Phone to Pending.pdf](#)
[FA Pending to Dispatch.pdf](#)

Office 365
SharePoint

BROWSE LIST

Logo

ECC SharePoint Home

MCFRS QuickLinks

ECC Calendar

ECC Leave Calendar

ECC Rotation Log

ECC Notebook

TSR Submissions

Documents

Subsites

Quality Assurance Center

Information Center

The One "Book"

Site contents

Recent

Information from the ECC Professional

Week 8 Stats

0 replies

Furst, Robert

Calls dispatched: 2299

Phone to dispatch:

ALS2: 137.4 seconds

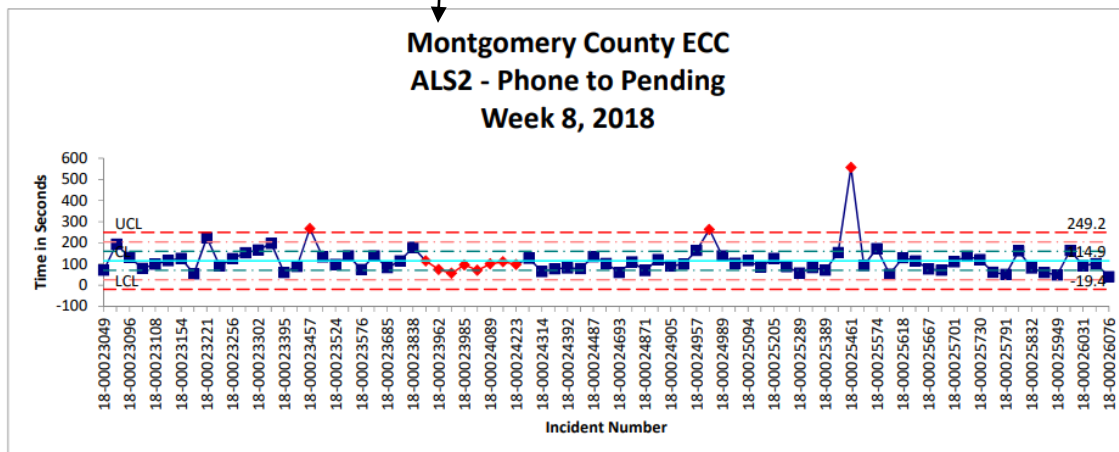
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[ALS2 Phone to Pending.pdf](#)
[ALS2 Pending to Dispatch.pdf](#)
[Echo Phone to Pending.pdf](#)
[Echo Pending to Dispatch.pdf](#)
[FA Phone to Pending.pdf](#)
[FA Pending to Dispatch.pdf](#)

Screenshot of the ECC SharePoint Professional Standards Unit with Week 8 Stats



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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Monitoring Future Influencing Factors Which Could Affect Service Delivery [CC 2D.3]

MCFRS actively monitors the County's growth/development and related trends; changing social, demographic, political and economic conditions/trends; external influences; and new or changing risks in analyzing the balance of service delivery capabilities with new or changing conditions and demands. This is achieved through the department's multi-faceted approach involving the following elements:

- Participation in the County's comprehensive community master planning process wherein approximately 5-6 of the nearly 60 community master plans and sector plans within the County are developed or revised annually by the Planning Department (i.e., Maryland-National Capital Park and Planning Commission's Community Planning Division) with the input of its partner agencies. MCFRS provides input for the Community Services and Facilities Section of each community plan as well as reviewing and commenting upon the multiple drafts of each plan; thus, providing MCFRS planners the opportunity to stay abreast of current demographic, political and economic conditions/trends; community issues and risks; future growth/development; and evolving risks. As part of this effort, the MCFRS planning manager has direct interaction with M-NCPPC planners who prepare the community master/sector plans and with M-NCPPC researchers who collect and analyze demographic and economic data in support of these plans. The MCFRS planning manager also receives and views the M-NCPPC's weekly publication "*Info Share*" which provides information on the agency's community planning efforts, agenda packets for the weekly Planning Board meetings, ongoing or completed studies/research, and any newly released reports and publications pertaining to demographic, economic and growth-related statistics and trends within the County.
- Regular interaction with the County's five Citizen Advisory Boards serving the County's five regions (corresponding to the five Regional Services Centers)

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- wherein the Fire Chief and Division Chiefs attend the monthly CAB meetings, keeping abreast of changing conditions, issues and needs within each region.
- Participation in periodic meetings with the County Executive’s planning staff concerning needs and plans for new fire stations within planned communities.
 - Attendance at select work sessions of the County Council’s Planning, Housing and Economic Development (PHED) Committee; thus, staying abreast of growth and development trends, economic and social conditions/trends, and community needs.
 - The Operations Division monitors threat assessments issued by the federal government (i.e., Department of Homeland Security; Federal Bureau of Investigations; Bureau of Alcohol, Tobacco, Firearms and Explosives) that impact risk levels within the National Capital Region, including Montgomery County.

In addition to the aforementioned bullets, which are MCFRS’ self-assessment description of how it meets this core competency, MCFRS also actively collaborates with regional public safety leaders through the [Metropolitan Council of Governments](#) (MWCOC). This robust collaborative public safety framework allows MCFRS to maintain a regional and even national situational awareness of current and possible future altering conditions, growth and development trends, and new or changing risks. This type of information sharing assists MCFRS when performing master and strategic planning and specifically when attempting to determine whether current capabilities will be able to sustain future changing contributing factors.

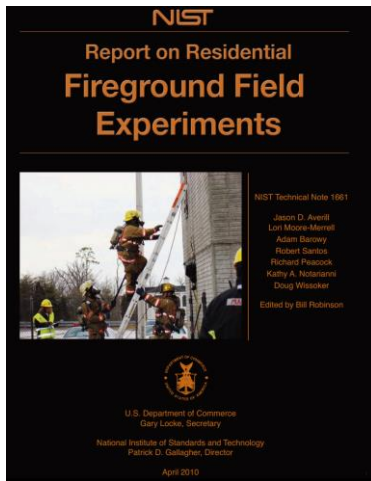
An example of local, regional, and national changing contributing factors that are causing fire service agencies to reanalyze existing service capabilities are building codes allowing for [Type V-A](#) wood-frame, 75-foot high-rise residential occupancies to be built and the challenges they pose, especially during the construction phases.

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Two recent and local examples of these types of changing contributing factors are an April 1, 2014 [Third Alarm large-area luxury apartment building fire](#) under Type V-A construction and only one-month from occupancy, yielding a 21-million dollar loss in Rockville (Montgomery County) and an April 24, 2017 [Five Alarm 39-million dollar loss fire in an under construction Type V-A building in College Park \(Prince Georges Co.\) Maryland.](#)

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Performance Monitoring Supports MCFRS Annual Assessment of Programs [2D.4]



National Institute of Standards and Technology Technical Note 1861,
104 pages (March 2010) CODEN:



Produced with the Cooperation of
Montgomery County
Fire and Rescue
Chief Richard Bowers



Produced with the Cooperation of
Fairfax County
Fire and Rescue
Chief Ronald Mastin



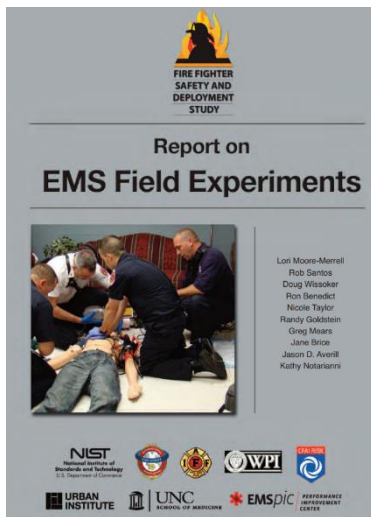
Funding provided through DHS/FEMA Grant Program Directorate for FY 2008
Assistance to Firefighters Grant Program - Fire Prevention and Safety Grants
(EMW-2008-FP-01603)



Community Risk Assessment



[NIST Report on Residential Fireground Field Experiments](#) [IAFF-CFAI-NIST FireCares](#)



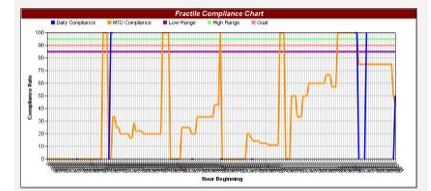
Produced with the Cooperation of
Montgomery County, Maryland
Fire and Rescue, Department
Chief Richard Bowers



Produced with the Cooperation of
Fairfax County, Virginia
Fire and Rescue Department
Chief Ronald Mastin



Funding provided through DHS/FEMA Grant Program Directorate for FY 2008
Assistance to Firefighters Grant Program - Fire Prevention and Safety Grants
(EMW-2008-FP-01603)



[Firefighter Safety and Deployment Study: EMS Field Experiments](#)



Countrywide



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The performance monitoring methodology used by MCFRS supports the assessment of the efficiency and effectiveness of our emergency response programs in relation to research performed by the Fire/EMS industry. Our methodology incorporates industry research pertaining to fire suppression and emergency medical services as follows [The online reader is encouraged to click on all hyperlinks]:

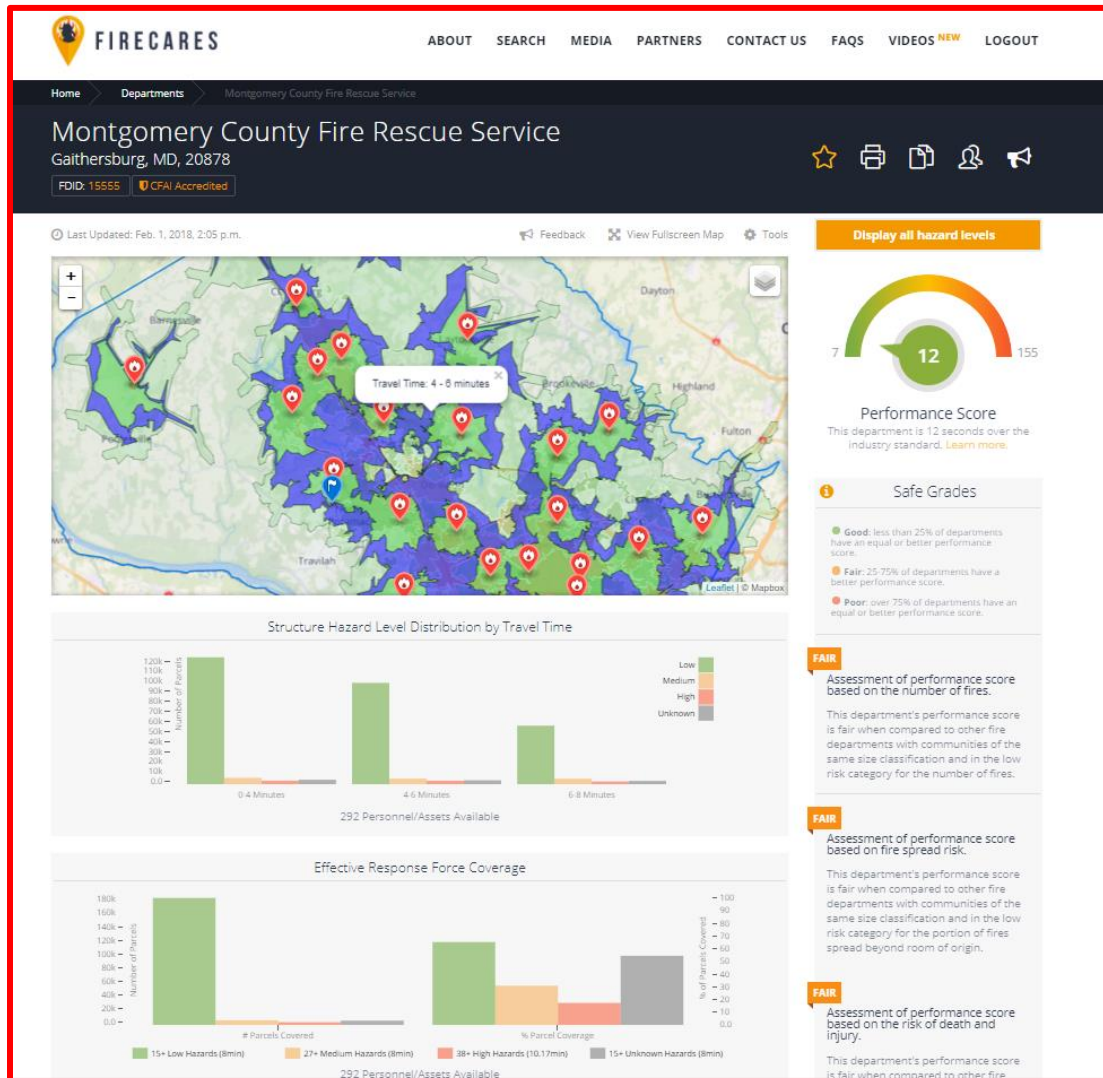
- [National Institute for Standards & Technology \(NIST\): Time-to-task analyses](#) for single-family residential fires, high-rise fires, and emergency medical services. [MCFRS hosted and participated in the NIST studies conducted at the County's Public Safety Training Academy. MCFRS uses the results of these studies in performing critical tasks' analyses for its emergency response programs and for much of the justification for the department's 4-person staffing strategy for the minimum staffing of MCFRS engines, aerial units and rescue squads.]
- NIST and Underwriters Laboratories (UL): Fire flow-path research/studies conducted in recent years. [MCFRS utilizes these research findings in its fire suppression training and during fireground tactics to improve service delivery effectiveness and firefighter safety.]

[Master Firefighter/Lieutenant Promotional Exam Source List](#)

- Article: “[Interrupting the Flow Path](#)”. UL – New Science article
- Article: “[Innovating Fire Attack Tactics](#)”; UL – New Science article
- Article: “[What Research Tells Us about the Modern Fireground](#)”
- Article: “[Maryland Updates Smoke Alarm Law](#)”, August 8, 2013
- Video: “[Fire Chief Steve Lohr Inaugural Video Message, April 2014](#)”.
- Video in 3 parts: “Understanding the Modern Fire Environment: Flow Paths, Fuels & Tactics, Parts 1, 2 & 3”: ATF & Adam St. John
 - o [Part 1](#)
 - o [Part 2](#)
 - o [Part 3](#)
- PPT Presentation: “[Driver's Guide to METRO](#)”
- PPT Presentation: “[Doughnut Construction](#)”

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

- [Fire-Community Assessment Response Evaluation System \(FireCARES™\)](#) – Data analysis, performance analysis, and risk assessment computer software developed in recent years. [MCFRS has provided data for inclusion in the FireCARES database as well as input concerning accuracy of previously uploaded data by system developers.]



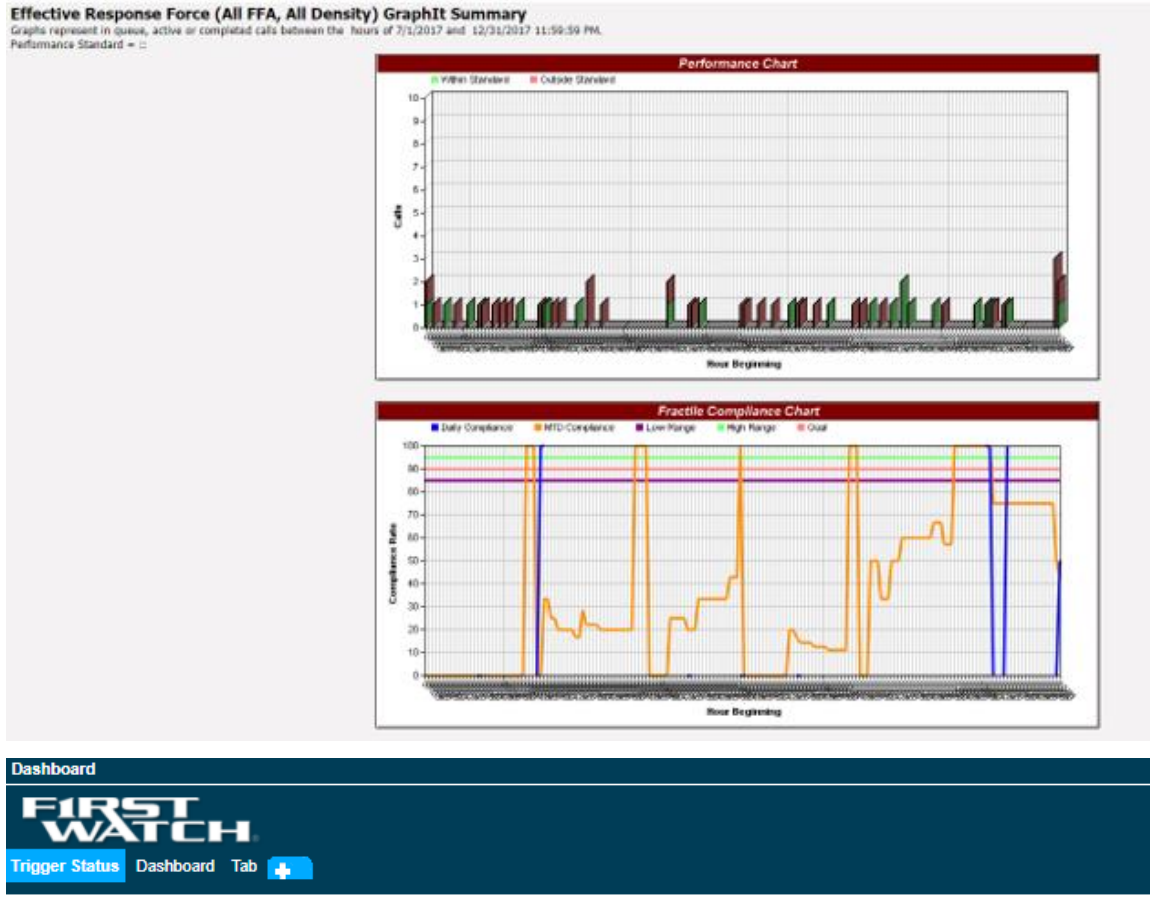
OUR PARTNERS



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- First Watch™ –Software providing a real-time snapshot of resource deployment and performance metrics that can be used in real-time analyses, decision-making, briefings, reports, operational performance monitoring, etc. [Presently used by the MCFRS EMS Section to identify EMS “super users” and to examine transport unit cycle times. MCFRS is looking at expanded use of First Watch.]



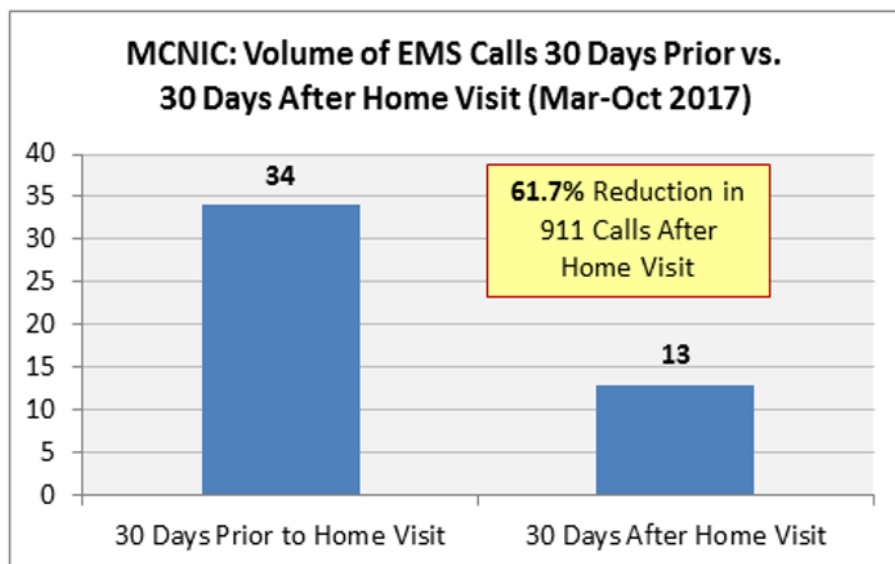
All Triggers			Trend Based Triggers			Performance Triggers			Favorite Triggers		
Trigger Links			Status			Standard Deviation					
Effective Response Force (All FFA, All Density)			+ OK			0/1					
Effective Response Force - (Alert)			- OK			0/1					
Effective Response Force - Metropolitan HY (18min)			+ OK			0/0					
Effective Response Force - Rural HY (27min)			+ OK			0/0					
Effective Response Force - Rural NHY (30min)			+ OK			0/0					
Effective Response Force - Suburban HY (23min)			+ OK			0/0					
Effective Response Force - Suburban NHY (25min)			+ OK			0/0					
Effective Response Force - Urban HY (20min)			+ OK			0/0					

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

- [Community Paramedicine](#) – Provision of routine healthcare services to frequent users (“super-users”) of emergency medical services (EMS) through use of a multi-organizational, collaborative approach involving a cross-section of public and private sector healthcare providers. Research shows that patients who often utilize EMS have unmet medical and/or social service needs. [Montgomery County has established a community paramedicine program called “Montgomery County Non-emergency Intervention and Community Care Coordination (MCNIC³).” The program is provided by MCFRS paramedics in partnership with the County’s Department of Health & Human Services and area hospitals. MCNIC³ seeks to identify unmet needs of EMS super-users and link patients to more appropriate and beneficial resources for care; thus, avoiding the need for emergency care and transport by MCFRS.]



But Does It Work?



2018 Officers Meeting

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Programmatic Incident Mitigation Efforts are Assessed for Effectiveness [2D.5]

The MCFRS Community Risk Reduction (CRR) team focuses on studying our community and identifying and evaluating risks to develop and deploy risk reduction programs that help our customers stay safe and be prepared.

The department uses incident and fire reporting data, MCFRS and State Fire and Explosive Investigator reports, census and demographic information, and data from local, regional and national organizations to identify trends, 911 call patterns, and the overall risk within the County. This data is used by the department to provide an integrated and strategic approach and investment of department resources with the goal of reducing occurrences and impact of emergency events while directing resources to priority areas for the most effective community risk reduction and incident mitigation efforts. Our programs take nationally recognized concepts in fire and life safety and localize them for improved community engagement. Evaluation addresses both impact and outcomes and measures both short-term and long-term effects. The CRR model categorizes interventions into the five “E’s” (i.e., education, engineering, enforcement, economic incentives and evaluation). Examples of each of these interventions undertaken and supported by MCFRS include:

- Education – school programs, multi-lingual educational materials, Home Safety Visit program.
- Engineering/Technology – Smoke alarm installation for high risk populations and economically challenged residents. Another example is fire-safe cigarettes.
- Enforcement – Maryland’s new Smoke Alarm Law requires the replacement of battery-powered 9V smoke alarms with sealed, 10-year lithium batteries by 1/1/18 which is projected to have a significant impact on reducing the number of residential fire deaths throughout the State.
- Economic Incentives – Residential fire sprinklers legislation and tax incentives.
- Evaluation – Identification of successful programs as well as those needing improvement to ensure a strategic and fiscally responsive investment of resources.

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MCFRS uses performance measures, benchmarks and trend analyses leading to improved CRR programs and service delivery.



CRR HOME SAFETY CHECK PROGRAM

Total On-Line Requests by Month

*Does not include >1000 phone calls received in December

6/2015	1	2/2016	24	10/2016	33	6/2017	75
7/2015	1	3/2016	24	11/2016	30	7/2017	72
8/2015	3	4/2016	16	12/2016	21	8/2017	145
9/2015	2	5/2016	32	1/2017	10	9/2017	169
10/2015	17	6/2016	14	2/2017	34	10/2017	67
11/2015	19	7/2016	8	3/2017	36	11/2017	110
12/2015	12	8/2016	22	4/2017	23	12/2017	456
1/2016	17	9/2016	24	5/2017	84		

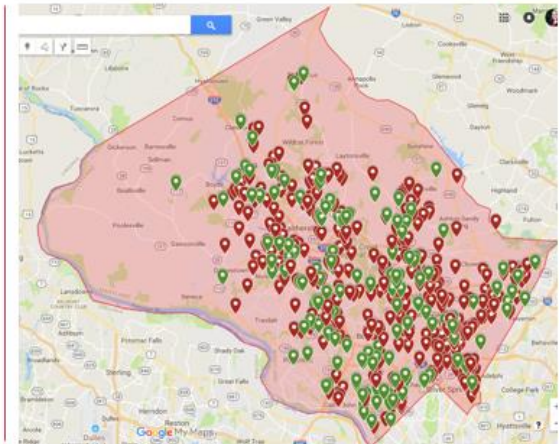


MCFRS Management Team Briefing



CRR HOME SAFETY CHECK PROGRAM

October 2017 through December 2017

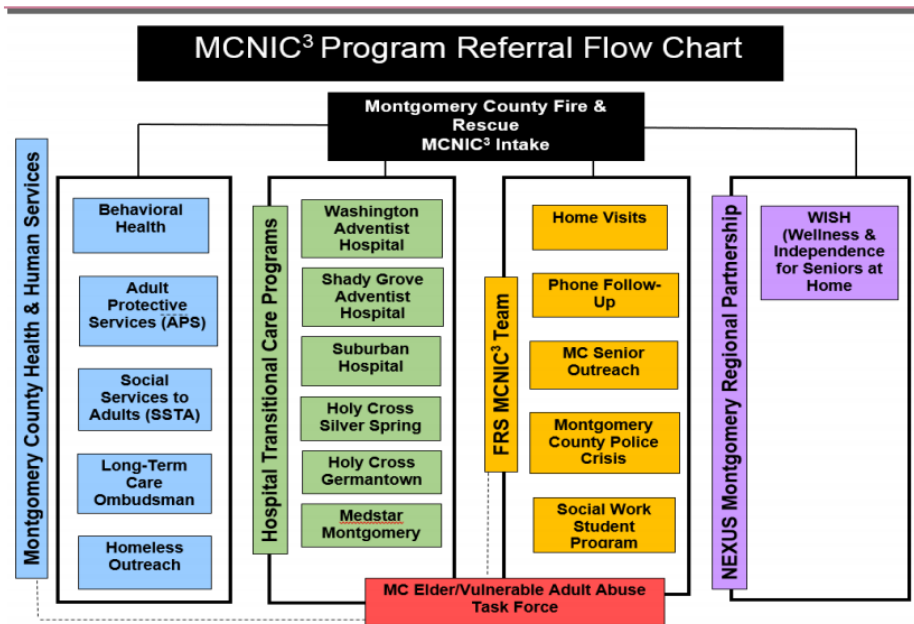


Pending Requests: 353
Completed Requests: 280
Total Requests: 633



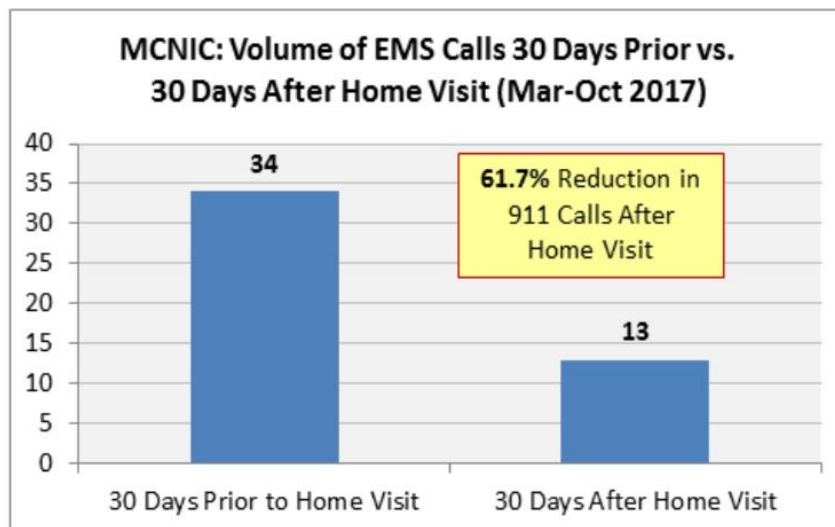
MCFRS Management Team Briefing

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER



MCFRS Management Team Briefing

But Does It Work?

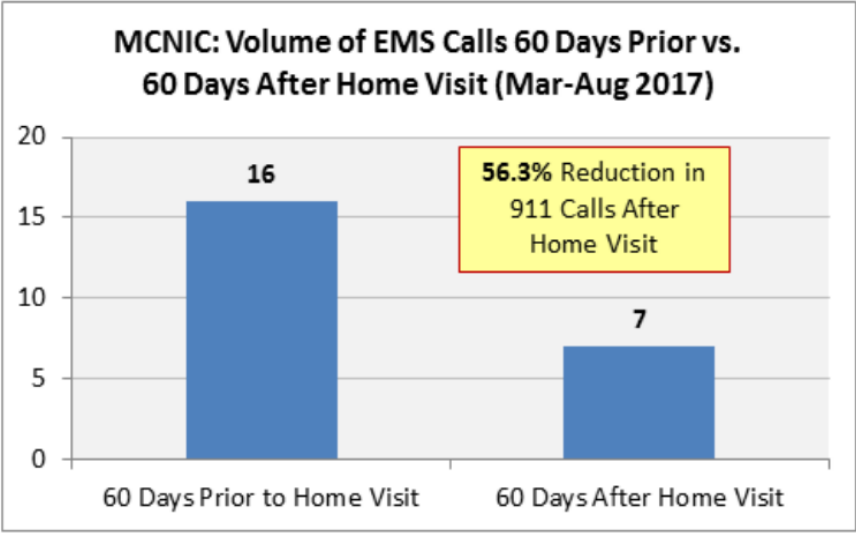


MCFRS Management Team Briefing

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER



But Does It Work?



MCFRS Management Team Briefing

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Performance Gaps (Negative Trending etc.) Determined at Least Annually [CC 2D.6]

MCFRS transparently, both externally and internally, monitors, analyzes, and documents all-hazard emergency services' performance gaps. The systems, processes, and principles used to achieve this mandate are well documented within the section of this Community Risk Assessment/Standard of Cover (CRA/SOC) manual titled, *Determination if Response Time Performance Objectives Met [CC 2C.5]*.

Year	Estimated Population	Tot. Struct. Fires	Civilian Struct. Fire Deaths	Civilian Struct. Fire Injuries	Struct. Fire Loss	Total Fires (Struct + Others)	Civilian Other Fire Deaths	Total Fire-related Civilian Deaths	Total Fire Loss
2014	1,020,036	618	6	37	55,493,809	1276	1	7	58,617,610
2015	1,030,447	594	0	25	24,812,594	1183	2	2	27,405,839
2016	1,040,116	533	5	66	21,118,384	1214	1	6	23,619,964
2017	1,043,863	542	2	26	21,015,602	1221	1	3	23,621,870

The above table serves as an example of MCFRS' methodology that includes monitoring and measuring negative fire consequences (and with 2015's zero structure fire deaths positive consequences) within the service area

The many processes employed to determine, monitor and report programmatic performance gaps are documented throughout this CRA/SOC manual. They include quarterly headline measures performance reported to the AHJ and subsequently to the community through the [CountyStat](#) online system, which includes trending analysis and documented performance improvement plans. The processes also include Quarterly Leadership Briefings where Divisions and Sections report to this agency's management team using performance data dashboard presentations. There are many more examples, and the reader is encouraged to re-review the following section of this CRA/SOC manual: *Positive and Negative Service Delivery Outcomes Methodology and Analysis [2A.5]* and *Event Consequence and Loss Data [2B.3]*.

MCFRS' commitment to analyzing and defining program gaps and the development of sometimes complex solutions to close gaps, support the agency's desire to seek continuous improvement and never-ending organizational excellence.

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

MCFRS Continuous Improvement Plan to Address Gaps and Inadequacies [CC 2D.7]

The department's plan for achieving continuous improvement is comprised of several integrated documents that serve collectively as our "plan." Together, these documents detail the actions to be taken within an identified timeframe to address departmental needs, gaps, deficiencies and deviations/variations that exist. Our continuous improvement plan; therefore, is comprised of our Master Plan initiatives for the 2016-2022 timeframe, our Annual Strategic Plan initiatives for each fiscal year, and our division/section goals and objectives. It is our goals and objectives document that specifies timeframes for actions to be taken.

The key document in our "continuous improvement plan" is our Master Plan. Our Annual Strategic Plan and goals and objectives are tied to the Master Plan, having been established directly from it. Master Plan initiatives (example shown below), found in Section 6 and Appendix I of the Master Plan, address all facets and program areas of the MCFRS and were systematically developed over the two-year period of Master Plan development, with input provided by our internal and external stakeholders/partners.

OPERATIONS

EMERGENCY MEDICAL SERVICES

1. **[PRIORITY A]** Implement modified ALS delivery model:
 - A. Replace the majority of medic units with one-person (or, in limited cases, two-person) ALS chase units; thus allowing for the county-wide redistribution of a limited number of ALS providers. ALS chase units will not normally be dispatched on BLS incidents nor will they transport patients; thus improving the availability of ALS units and reliability⁸⁸ of ALS service.

⁸⁸ Reliability addresses both availability of a specific type of unit and whether its response time is within established 90th percentile goals of the department.

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Notification to AHJ of Significant Operational Gaps Affecting Mitigation Efforts [2D.8]


MCFRS leadership routinely meets with the Montgomery County Council's Public Safety Committee where they are apprised of not only gaps but successes. Additionally, MCFRS meets with this committee during proposed fiscal year budget work sessions, which include documented successes and gaps within legislative analyst memoranda. Service level delivery gaps are documented as well as strategies to close those gaps. Programmatic successes are also documented.

[Click to view the complete Legislative Packet and see page 4 for gap-strategy example](#)

MEMORANDUM

April 14, 2017

TO: Public Safety Committee

FROM: Susan J. Farag, Legislative Analyst 

SUBJECT: **Worksession: FY18 Operating Budget and FY17-22 CIP Amendments**
Montgomery County Fire and Rescue Service (MCFRS)

Those expected for this worksession:

Chief Scott Goldstein, MCFRS
Bruce Meier, Office of Management and Budget (OMB)
Marcine Goodloe, President, Montgomery County Volunteer Fire and Rescue Association (MCVFRA)
Eric Bernard, Executive Director (MCVFRA)

Budget Summary:

- Staffing is reduced by a net total of 21 positions for FY18. This reflects the shift of 27 call taker positions to the Police Department for the Emergency Communications Center. The proposed budget also adds five positions to staff a Paramedic Chase Unit (PCU) at the Aspen Hill Station and one Captain position to provide liaison services with WMATA Rail Center Operations.
- The budget includes a 65-member recruit class to provide the new positions and address attrition.
- \$500,000 in overtime has been added to the Sandy Spring Station to reduce response time during the weekdays.
- The new Montgomery County Volunteer Fire and Rescue Association (MCVFRA) agreement has been bargained, and takes effect July 1, 2017.

Example of a gap addressed and a mitigation strategy (page 4):

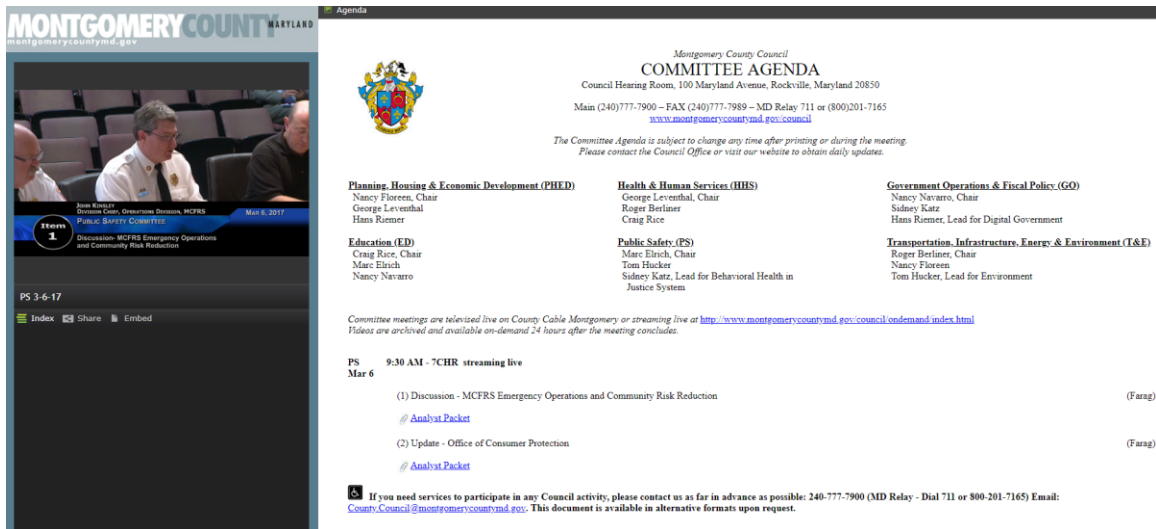
Reduce Response Time at Sandy Spring (Station 40) (\$500,000)

The FY18 Recommended Budget includes \$500,000 for overtime to provide three staffed positions Monday through Friday at Station 40. This overtime staffing began in October 2016 and has effectively reduced failures to respond (FFRs) to 0 during the week.

This staffing change adds to the FY 16 staffing increase of six personnel (including a paramedic) from 5am during weekdays and 3pm during nights and weekends. It reduced FFRs during nights and weekends, but FFRs remained high during the weekdays. The additional overtime proposed in FY18 will continue to support the reduced FFRs. MCFRS indicates that the Local Fire and Rescue Department (LFRD) "continues to support this full staffing during daytime hours and the data supports the need for this to be part of the operating budget."

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MONTGOMERY COUNTY MARYLAND
montgomerycountymd.gov

Agenda

Montgomery County Council
COMMITTEE AGENDA
Council Hearing Room, 100 Maryland Avenue, Rockville, Maryland 20850
Main (240)777-7900 – FAX (240)777-7989 – MD Relay 711 or (800)201-7165
www.montgomerycountymd.gov/council

The Committee Agenda is subject to change any time after printing or during the meeting.
Please contact the Council Office or visit our website to obtain daily updates.

Planning, Housing & Economic Development (PHED)
Nancy Floreen, Chair
George Leventhal
Hans Riemer

Health & Human Services (HHS)
George Leventhal, Chair
Roger Berliner
Craig Rice

Government Operations & Fiscal Policy (GO)
Nancy Navarro, Chair
Sidney Katz
Hans Riemer, Lead for Digital Government

Education (ED)
Craig Rice, Chair
Marc Elisch
Nancy Navarro

Public Safety (PS)
Marc Elisch, Chair
Tom Hucker
Sidney Katz, Lead for Behavioral Health in Justice System

Transportation, Infrastructure, Energy & Environment (T&E)
Roger Berliner, Chair
Nancy Floreen
Tom Hucker, Lead for Environment

Committee meetings are televised live on County Cable Montgomery or streaming live at <http://www.montgomerycountymd.gov/council/ondemand/index.html>
Videos are archived and available on-demand 24 hours after the meeting concludes.

PS 9:30 AM - 7:00 PM streaming live
Mar 6

(1) Discussion - MCFRS Emergency Operations and Community Risk Reduction (Faring)
Analyst Packet

(2) Update - Office of Consumer Protection (Faring)
Analyst Packet

If you need services to participate in any Council activity, please contact us as far in advance as possible: 240-777-7900 (MD Relay - Dial 711 or 800-201-7165) Email: Council.Council@montgomerycountymd.gov. This document is available in alternative formats upon request.

[Click here to watch the 3/6/17 Public Safety Committee Meeting with MCFRS](#)

The agenda for this 3/6/17 work session was MCFRS providing an update to the AHJ and the community as a whole on Emergency Operations and the Community Risk Reduction (CRR) program.

The online reader is also encouraged to [click on this hyperlink](#) to see this work session's legislative packet and the Operations Division and the Community Outreach Section's CRR presentations to the AHJ and community as a whole.

Regular work sessions with the Public Safety Committee are one way in which MCFRS formally notifies the AHJ of operational capabilities and, at times, gaps in the delivery system. Posting headline performance data quarterly to the CountyStat system is another way MCFRS reports any performance gaps. Trending is documented and performance improvement plans are listed as well.

The online reader is also encouraged to [click on this hyperlink](#) to view the 2/12/18 MCFRS work session with the Public Safety Committee to discuss the Capital Improvements Program.

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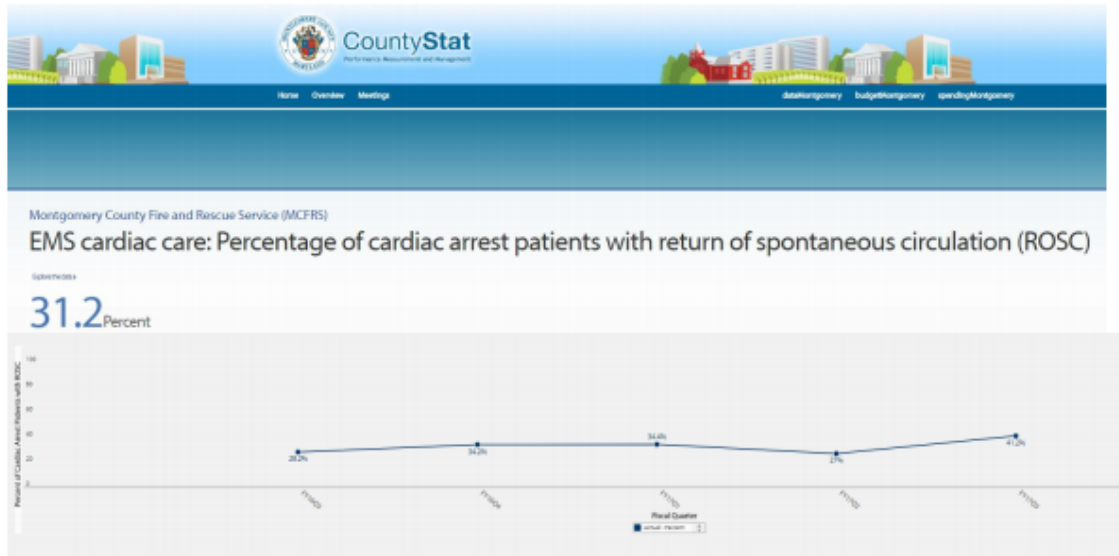
AHJ Notification: Gaps bet. Current Capabilities & Approved Service Levels [2D.9]

In addition to what is explained above regarding PI 2D.8 (also applicable to this PI), MCFRS, on a quarterly basis, provides operational performance data to the Montgomery County's CountyStat Office of Performance and Measurement where the data is posted online and compared to prior quarters. This comparison offers a transparent way for the AHJ and all citizen stakeholders to determine baseline gaps and/or enhancements and, thus, the level of service is quantified. In addition, a Performance Improvement Plan is listed for each of the measured programs.

MCFRS also provides a Performance & Accountability Report to the CountyStat Office annually that includes agency headline performance measures' data for the past fiscal year compared to the previous three years (i.e., performance trends), factors contributing to current performance, factors restricting performance improvement, and a performance improvement plan for each headline measure. The Performance & Accountability Report is also posted online by CountyStat; thus, making it available to the County Council as well as the public.

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<https://reports.data.montgomerycountymd.gov/countystat/department/mcfrs>



Why is this measure important?

Montgomery County experiences approximately 50 out-of-hospital sudden cardiac arrests each month. The goal is to have all of these patients walk out of the hospital with all of their faculties intact. Measuring return of spontaneous circulation (ROSC) is the first step in this process. MCFRS hopes to measure ultimate outcomes in the future, but this is dependent upon coordination with and cooperation from our hospital partners.

Factors contributing to current performance

- Implementation of high performance CPR and treating patient on scene.
- Provision of Lucas devices (automatic CPR machines) for use during patient transport. [Note: The primary objectives for using Lucas devices are over-the-road CPR effectiveness and safety of our personnel, as these devices perform over-the-road CPR more effectively than would a standing EMS provider (who would be adversely impacted by the physical forces exerted by a vehicle in motion) and with minimal risk to EMS providers.]
- Quality improvement (QI) feedback loop within the department.

Factors restricting performance improvement

- Lack of lay person CPR being performed prior to arrival of MCFRS
- Lack of sufficient number of Lucas devices on MCFRS apparatus. [Note: These devices are costly to purchase and maintain; thus, in view of budget limitations, it will take several years to purchase a sufficient number of devices to achieve the goal whereby a unit in each station will carry one.]

Performance improvement plan

- In accordance with Brianna's Law, CPR/AED training is now required for graduation from public high schools in Maryland. This should improve the frequency and quality of lay person CPR throughout the County and State.
- Hands-free CPR training for the public will continue to be offered by MCFRS during the County Agricultural Fair and various community events and special events.
- MCFRS will continue building out its fleet of Lucas devices (approximately two devices per year) so that eventually a unit in each station will carry this device.
- County Police, who are trained as first-responders, will now be responding priority to all cardiac arrest incidents. Some police vehicles carry AEDs that officers are trained to use. This initiative should improve the provision of early CPR and defibrillation.
- MCFRS is participating with MIEMSS in "CARES" - a national project administered by Emory University which seeks to improve out-of-hospital cardiac arrest care.

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Interactions: External Stakeholders & AHJ: Determine Program Expectations [2D.10]

The following provide examples of how MCFRS routinely interacts with external stakeholders and the AHJ. These interactions provide effective feedback on service delivery programs, expectations, and levels of service to name a few.

[Click here for Exhibit 9 that packages numerous documents to support these examples.](#)

(a) The Office of the County Executive’s Fire and Emergency Services Commission holds monthly meetings as required in Chapter 21 of the County Code to discuss and perform appropriate actions in reference to MCFRS. This Commission is composed of 7 voting members appointed by the County Executive and confirmed by the County Council. Two members must be County career fire/rescue personnel, 2 members must be volunteer local fire and rescue department personnel, and 3 members must have no personal, family, or business connection with the County volunteer or career fire and emergency services. FESC members must be County residents and reside in various geographic areas of the County and have a variety of occupational backgrounds.

(b) The Fire Chief has directed Division Chiefs, or their designee, to serve as liaisons to Citizen Advisory Boards by attending monthly meetings at the five Montgomery County Government Regional Services Centers. The mission statement of these centers is “to represent the County in their respective regions by providing effective, timely liaison between Montgomery County and its residents and businesses and by working with individuals, community groups, regional Citizens' Advisory Boards, and other public agencies to provide information, identify and assess regional problems and issues, and recommend and/or implement solutions.”

(c) The MCFRS Master Planning process requires public hearing(s) per County Code, Section 21-12(b). The MCFRS Planning Manager attends Citizens Advisory Board meetings and presents the draft Master Plan to solicit input.

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(d) Information pertaining to PI 2D.8 and 2D.9 along with the exhibits previously documented in this report.

(e) MCFRS is part of the Metropolitan Washington Council of Governments (MWCOG). As such, MCFRS participates, interacts, and collaborates with other regional Fire/Rescue and public safety agencies to develop synergistic solutions to complex problems. These external stakeholders meet monthly. For Fire/Rescue, there is a Fire Chief's Committee that is broken down under numerous subcommittees. Chief Goldstein is currently the Vice Chairman of the Fire Chief's Committee.

The screenshot displays the Montgomery County MD Government website. The header includes the county seal and the text "MontgomeryCountyMD.GOV" and "Montgomery County Government". A navigation bar lists various services and departments. The main content area is titled "Office of the County Executive" and "Boards, Committees and Commissions". A sidebar on the left contains links to various resources. The main content area features a section for the "Fire and Emergency Services Commission" with details on when, where, and how to contact them.

Fire and Emergency Services Commission	
WHEN	Thursday, June 8, 2017, 7 - 8pm
WHERE	100 Edison Park Drive 1st floor Gaithersburg, Maryland 20878
DESCRIPTION	Monthly Commission meetings as required in Chapter 21 of the County Code to discuss and perform appropriate actions in reference to the Montgomery County Fire and Rescue Service.
CONTACT EMAIL	George.Giebel@montgomerycountymd.gov
CONTACT NAME	George Giebel
CONTACT PHONE	240-777-2408
BOARDS	Fire and Emergency Services Commission
CATEGORY	Boards, Committees & Commissions

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Historical Significant Incidents

Throughout Montgomery County Fire-Rescue history, there have been many significant incidents that have formed the landscape now known as the modern day MCFRS. While the department runs over 120,000 emergency and public service calls per year, some of the more notable incidents have resulted in the formation of policy and law that affect how MCFRS does business.

- 1935** School bus/train collision in Rockville, 14 children killed, 13 injured
- 1965** Fire Station 17 and apparatus destroyed by fire
- 1966** Travilah Road fatal house fire, 4-person family killed
- 1971** Columbia Union College fire in Takoma Park
- 1975** Washingtonian Country Club fire
- 1981** Arcola Avenue nursing home fatal fire, several injured, 2 died, no sprinklers
- 1982** IBM office building shootings in Bethesda, 9 injured, 3 killed
- 1983** Gasoline spill in Takoma Park sewer system caused multiple house fires
- 1986** [Fatal farmhouse fire](#) in Boyds, 6 fatalities
- 1992** Tanker explosion from crash under I-495 overpass, 2 killed, 3 injured
- 1996** MARC & AMTRAK train collision with fire in Silver Spring, 11 killed
- 1998** Pipe bomb explosion in Bethesda home – 4 teenagers killed
- 1998** Fatal basement fire in Gaithersburg home, 2 children killed
- 2001** Home destroyed by natural gas explosion in White Oak, 2 killed
- 2002** AMTRAK double-decker train derailment in Kensington, 101 injured
- 2002** Multi-week sniper incident, 6 fatalities in Montgomery County
- 2002** Fatal Gaithersburg house fire, 1 adult and 2 children killed
- 2002** Parking garage collapse in Rockville, 3 fatalities
- 2005** [Fatal Leisure World fire](#), 1 killed, MCFRS Mayday policy rewritten and new department policies put in place for fire ground operations
- 2007** [Fatal Derwood house fire](#), 2 adults, 1 child killed
- 2007** [Fatal Kensington house fire](#), 2 elderly killed, genesis of the Senior Citizen Fire Safety Task Force Report
- 2007** [Fatal Burtonsville garden apartment fire](#), 1 adult and 3 children killed
- 2008** [Fatal Twinbrook apartment fire](#), one resident killed, 3 fire fighters severely injured, further revision of the Mayday policy
- 2011** [500-acre Darnestown brush fire](#), largest MCFRS resource deployment to date
- 2014** [Third Alarm](#) large-area luxury apartment building fire under Type V-A construction and one-month from occupancy, yielding a multi-million dollar loss in Rockville
- 2014** [Small jet crashes](#) into house on approach to Montgomery Airpark, with fire; 6 fatalities
- 2015** Marks first time in 30 years without a residential fire death in the County

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- 2016** [Garden apartment explodes](#) into fire and is fully involved upon FD arrival; 7 fatalities and 36 injured
- 2016** [Multi-day fire](#) at the County's Resource Recovery Incinerator facility
- 2017** [Line of Duty Death \(LODD\)](#) of posthumously-promoted Master Firefighter Charles "Rick" Gentilcore while on duty at Fire Station 15.
- 2017** [Line of Duty Death \(LODD\)](#) of Rockville VFD Lieutenant and Maryland State Police Deputy State Fire Marshal Sander Cohen while on scene of a vehicle incident on Interstate 270
- 2018** [Third Alarm](#) garden apartment complex fire in Rockville

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Service Milestones

- 1970** First “Heartmobile” was placed in service at Station 19. The Heartmobile provided cutting edge, advanced life support care, leading the way for our modern ALS medic unit
- 1973** First fire-rescue recruit graduated from County’s Fire Rescue Training Academy
- 1974** First Cardiac Rescue Technician Class offered. First County to provide advanced life support in the Washington area
- 1981** SETT Team created (high angle rescue team). This team would eventually become part of the technical component of the US&R Team
- 1981** Haz-Mat Team created, housed at Fire Station 7 (Chevy Chase).
- 1985** US&R Team formed; initially called the Collapse Rescue Team, then in 1989 became Maryland Task Force One, a FEMA Urban Search and Rescue Team. The team provides heavy search and rescue, dog searches, medical care, and logistical services. Among notable deployments have been the Murrah Federal Building explosion in Oklahoma City, Pentagon in 2001, the 2002 Salt Lake City Olympics, the 2004 Democratic Convention, and to Alabama and Louisiana during Hurricane Katrina. Their most recent deployment in 2016 was to Columbia, SC to assist with efforts surrounding Hurricane Matthew.
- 1990** Swift Water Rescue Team created and formally organized in 1992 to support the need for swift water rescues on the Potomac River and flash flooding the County experiences on a regular basis.
- 1994** Montgomery County placed the first arson dog in service
- 1998** Fire Investigation Bomb Squad was formed
- 2000** Water Supply Study – identified need for CAFS engines, increased number of tankers, large diameter supply lines, standardization of engines/apparatus, and rural water supply SOPs
- 2001** Responded to the Pentagon for the 9/11 attack
- 2001** Aerial Unit Study – studied relocation of aerial trucks in the County, benefits of tractor drawn vs. tower ladders, and strategic deployment of aerial units. Recommendations made in Master Plan based upon this study.
- 2002** Fire Rescue Occupation Medical Section opened and MCFRS adopted the IAFF Wellness Fitness Initiative
- 2002** Command Development Center established at the Training Academy
- 2003** Switched radio system to 800 MHz trunked system
- 2003** MCFRS Command Bus placed in service
- 2004** 24-hour safety officer coverage and full time Safety Office created
- 2004** Rescue Squad Study – studied squad locations, tiered response to collisions, integration of rescue trucks, created 9 recommendations
- 2004** Residential Sprinkler enacted to mandate sprinklers in new single-family homes
- 2004** Creation of Special Operations Section headed by an Assistant Chief overseeing Stations 7, 20, 10, 30, 29, 31, 25, and 28, consolidating operations of US&R, Hazmat, Swift Water Rescue, Investigations, Special Operations Planning, Emergency Operations and NCIMT (National Capital Incident Management Team).

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

- 2004** Centralized SCBA repair facility opens
- 2005** County Fire Chief takes over MCFRS based upon legislation (Bill 30-03)
- 2005** Introduction and adoption of NIMS
- 2005** Opened Clarksburg Station 35 in a temporary facility – 1st new station in 25 years
- 2005** Opened Logistics – uniforms, gear, emergency equipment
- 2005** Cooperative DFRS/MCP/Sheriff/public works response to New Orleans to assist the New Orleans FD after Hurricane Katrina
- 2006** 1&1 ALS model – one medic with one EMT, expanding ALS first-responder units, decreasing response to patient time for critical care patients
- 2006** Initiated 4-person staffing implementation, adding additional units every year
- 2006** Opened new Silver Spring Station 1 - joint police/fire/public education building
- 2007** Change to Council of Governments (COG) apparatus numbering system, consistent with surrounding jurisdictions
- 2007** Added 2 “flex” ambulances to accommodate the growing needs of our commuter community, operating during peak hours of 0800-2000
- 2008** Added 2 new EMS Duty Officers, resulting in a total of 3 to address EMS issues
- 2008** Medical Ambulance Bus & Medical Support Unit placed in service as part of the Urban Area Security Initiative federal grant (UASI)
- 2009** [Opened Station 22](#) – West Germantown (Kingsview)
- 2009** Opened Central Maintenance Facility (CMF) and CMF training facility - consolidating fleet management
- 2009** Implemented the ePCR, (electronic patient care reporting) program
- 2009** Driver training facility opens at Public Service Training Academy – multi agency training facility, high-speed track, cone course and lecture rooms
- 2010** [Opened Station 34](#) – East Germantown (Milestone)
- 2010** Flex units eliminated due to lack of funding
- 2010** Eliminated the extra EMS duty officers, now only have one due to lack of funding
- 2012** Implementation of ambulance billing
- 2013** [Aerial Service at FS24](#) and an additional EMS Duty Officer are re-established in the FY2014 budget
- 2014** [2/27/14: Opened new Station 32](#) – Travilah - providing additional resources to MCFRS with Paramedic Engine 732 and Ambulance 732



- 2014** Monies included and sustained during future years to staff three additional engines with a fourth firefighter (PE704, E709, PE713). In addition, one of these engines, E709, is now a paramedic engine (the other two were already paramedic engines but with only three personnel).
- 2016** ALS enhancements with E726 now staffed with 4 as Paramedic Engine 726 (PE726)

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2016 [10/26/16: New \\$14M 23,000 Ft² Fire Station 18 opens](#) in the Glenmont/Wheaton area



2016 [10/28/16: New \\$69M Public Safety Training Academy](#) campus opens in Gaithersburg



- 2016** Montgomery County Government transfers Fire Prevention and Code Compliance Section from MCFRS to the Department of Permitting Services (DPS) in an effort to realize efficiencies of costs and staffing.
- 2016** [88 new Firefighter/Rescuer recruits](#) began 25-week recruit training in December at the new Public Safety Training Academy marking Recruit Class #41 as the [largest class ever hired by MCFRS](#).
- 2017** [New Motorola PremierOne™ Computer Aided Dispatch \(CAD\)](#) and [PURVIS Fire Station Alerting](#) systems placed in service through the multi-year Public Safety System Modernization ([PSSM](#)) [capital improvements project](#).
- 2017** Launched the Montgomery County Non-Emergency Intervention and Community Care Coordination ([MCNIC³](#)) [initiative](#) with goal of reducing EMS 911 calls for service originating from super-users. [Acknowledgement received at CFAI dinner](#).
- 2017** ALS enhancements by converting the 3-firefighter staffed Engines 710 and 711 to 4-firefighter staffed Paramedic Engine companies. Downgrade of Medics 704, 730, and 735 to BLS ambulances and the new resource, A706, placed into service.
- 2017** 40 new EMS transport units, 5 new aerial ladders, 2 new tanker/tenders, 1 new heavy rescue squad, and 2 new mobile command units as well as many new marked staff vehicles placed into service during FY16 and FY17.

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

2017 [County's Public Protection Classification \(PPC\) has been upgraded from a 3 / 6 to a 2 / 4.](#) The PPC for urban/hydranted areas is now PPC-2 and the non-hydranted rural areas is PPC-4. These upgrades were a result of a 2016 survey by ISO.

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Financial Basis

Funding for the Montgomery County Fire-Rescue has come a long way since the days when the local departments received funds based on the length of hose they housed in their stations. The first tax assessment districts were formed by legislation in 1927 in Chevy Chase and Silver Spring. The other local departments relied on bingo, bake sales, carnivals, and other fund raisers to support their equipment purchases and station management needs.

In 1933, the State of Maryland passed legislation authorizing local jurisdictions to assess fire taxes throughout their counties. In 1949, a fire tax district was created for every local fire department in the County. Several of the departments refused the tax money until the 1960s, fearing it would take away their independence. These departments continued to rely on donations and fund raising for operations.

The local departments have always managed their own monies that are obtained through donations. In the past, the Fire Board, the County's previous Fire Department managing entity, had budget and fiscal responsibility over tax distribution. Bill 37-97 enacted in 1997, shifted control of the fire department budget to the Fire Administrator. Bill 30-03, signed into law on January 1, 2005, created a County Fire Chief, giving this individual full budgetary authority over the fire department.

The fiscal year (FY) for Montgomery County runs from July 1st through June 30th. For [FY 2017 the MCFRS operating budget](#) was \$216 million, which is a decrease of \$6.0 million or 2.7% from the previous year. A significant portion of this decrease was the amount required to be contributed to the retirement fund. Even with this decrease, additional ALS enhancements and a large recruit class hiring were included in the funding.

The budget process is a never-ending cycle. When one year is submitted for approval, the next year's process begins. Analysis on previous year's spending trends are assessed,

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future needs are created, and baselines are listed. Every year MCFRS is given a mark by the Office of Management and Budget based on expected revenue that includes, but is not limited to, property tax and fire taxes.

Although the fire tax is listed as a line item on County property tax bills; fire tax revenues do not go directly or solely into the Fire-Rescue budget. Instead, the fire tax revenues go into the County general fund. The Fire-Rescue budget is distributed from the general fund and may or may not correlate with the amount collected from the fire tax.

In addition to annual operational expenditures, the fire tax sometimes supports multi-year Capital Improvement Projects (CIP). The MCFRS [FY2015-2020 CIP budget](#) is \$151.6 million and will fund numerous capital projects, including a new White Flint fire station, new apparatus, and a new Clarksburg Fire Station (see page 4 of the CIP budget for some MCFRS examples).

Chapter 21 of the County Code also dictate how and when the entire budget is created, submitted and implemented. The law dictates the dates the budget must be submitted by the County Executive, the dates the County Council must complete its review and the date it must be finalized. Fire Rescue is just one of many county departments required to work within the fiscal and logistical constraints of the county budget as a whole.

There are two phases of the Montgomery County budget process. The first phase is submitted as the full expected operating costs. Included in these costs are personnel and benefits (80% of the annual costs), equipment, fuel, building, maintenance, and gear. The second phase is the “reduction phase” or the revised, slimmed-down version that includes mandated cuts per County Council based upon the expected decreased revenue.

The County is legally obligated to negotiate with the firefighters representative, IAFF Local 1664, for a collective bargaining agreement. Negotiations occur the year before the CBA expires, be it a one, two or three-year contract. The Union negotiates with

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County and department representatives for wages, conditions of work, benefits, safety issues, gear, and equipment. Once an agreement is reached, either through negotiations, mediation or arbitration, the contract is ratified by the membership, and County law stipulates that the County Executive include the CBA costs in the budget submittal to County Council. The County Council then decides whether to fund the agreement as it is submitted. Although the arbitration is binding, the County Executive can choose not to include the CBA in his budget, which he did in 2011.

Financing a department with over 1200 career employees, 800 volunteers, County-owned buildings and apparatus, and corporation-owned (i.e., LFRD-owned) buildings and apparatus can be challenging at best. The corporations are funded, in part, through the County budget with tax dollars. Each corporation submits a budget to operate the stations they own to be included in the overall tax-funded Fire-Rescue budget. This could include utilities, station supplies, small tools, and building maintenance. The final approved amount of each of the 19 “mini” budgets is then distributed to each corporation for them to manage for the fiscal year; however, the County has recently moved to centralize all of these station support functions and plans to substantially cut the amount of tax funds given to the corporations. The individual corporations still have the opportunity to earn income through events, fire hall rentals or fundraisers through citizens or business donations. This money is controlled solely by the volunteers to cover items not included (or allowed) in the County budget or items not allowed to be in the budget. The current Montgomery County Volunteer Fire-Rescue Association (MCVFRA) [bargaining agreement](#) with the County covers a period of FY15-FY17. Budgets and expenditures are not subject to negotiation per Article 3, Section B (1).

Another avenue of funds for the volunteer corporations is the [Senator Amoss Fund](#) (a.k.a., “508” monies), a Maryland State grant specifically available for volunteer fire companies in Maryland. Annually, an average of \$1.3-1.4 million dollars is given to Montgomery County to distribute to the corporations. This money is to be used strictly for volunteer operations such as recruiting, station operations and equipment. In FY17

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Montgomery County Council, through [Resolution No. 18-741](#), provided Supplemental Appropriation #17-406 to the FY17 Operating Budget of \$1,975,500 from this Maryland State Grant.

The [County Code, Chapter 21, Section 21-21](#), mandates a program that rewards long-time volunteers with a compensation benefit. The Length of Service Awards Program, LOSAP, is managed by and included in the annual operating budget of the Fire-Rescue Service. The LOSAP award is a monthly stipend earned by volunteers based on age and years of service. The monthly benefits paid out based on this criteria range from \$92/mo to a maximum of \$345/mo. Also offered to the volunteers are a \$5000 death benefit, disability benefits, and a survivor's benefit. The Montgomery County Volunteer Fire-Rescue Association is the duly authorized representative bargaining agent for the County volunteers of the Local Fire and Rescue Departments (LFRD) in the direct negotiation process set forth in Chapter 21-6 of the Montgomery County Code. In 2007, the MCVFRA became the first volunteer organization in the country to bargain for volunteer benefits, such as improved death benefits, additional medical expenses associated with annual physicals, apparel, and nominal fee payments.

Grants have recently become an important part of funding special events or items not funded by the current budget. The volunteer corporations can apply for and be awarded grants as well. They regularly earn grants to purchase equipment, provide for recruiting, or purchase gear.

There are a number of considerations when applying for and using a grant:

- The time constraints placed on the user
- The strict rules on what the grant can be spent on
- The strict time limit of the grant
- The peripheral costs not included in the grant that will be incurred (e.g. the cost of gear and benefits associated with the hiring of the recruits with the FEMA SAFER grant).

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Occasionally the need for a supplemental or emergency request arises. A supplemental request would be for an item that was not planned for in a fiscal year but is considered important enough not to wait for. An emergency item would be an item that was budgeted but the costs rose and the budget was not able to cover it during the fiscal year.

In the spring of 2012, the County Council approved the Emergency Medical Services Transport Reimbursement Program (EMST). The intent of the EMS billing program was to generate additional revenue streams by billing insurance companies for EMS services provided to County residents by MCFRS. Since the inception of this program, the revenue generated for MCFRS has been approximately \$16 million annually. This revenue serves to support FY17 and later years' budgeted items including:

- Equipment and apparatus replacement
- Increased staffing levels
- Facility improvements
- Staff training
- Outreach and safety education services for seniors
- Support for Local Volunteer Fire Rescue Departments

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Fire-Rescue Planning

Much of the way in which MCFRS conducts business has been formed and dictated over the years by Master Plans and various studies and reports. These documents assess service delivery and resource needs in light of current and future trends so that the needs of the community and the department are met. The reports have covered subjects such as equipment, station locations, apparatus relocation, and delivery models in the context of the ever-changing population, demographics and hazards within the County.

The first report was drafted in 1958 and another in 1973, together providing recommendations and a blueprint for short and long-term fire station location considerations. Many of the fire stations that were built during that period are aligned with these recommendations.

In 1980, the Fire and Rescue Commission, the governing body of the department at that time, mandated that a Master Plan was needed for the ever-growing Fire, Rescue and Emergency Medical Services of Montgomery County. [Chapter 21, Section 21-12](#) of the Montgomery County Code requires the department to prepare a Master Plan; thus, making Fire-Rescue the only department in the County mandated to develop a master plan. The Master Plan was mandated to cover a period of 10 years, reassessed annually, and when appropriate, updated. The Master Plan and subsequent amendments must be approved by the County Council. The first Master Plan was adopted in October 1994 and defined its purpose as:

“It gives County residents a comprehensive description of how the fire rescue and emergency medical service fulfills their many public safety functions for which it is responsible and how changes in the County are likely to affect the delivery of service. Second, it provides direction for the present and the future through a set of recommendations that specifically address the steps to provide a desired level and quality of service.”

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In 1996, the Fire and Rescue Commission initiated a massive multi-faceted examination of six issues highlighted in the 1994 Master Plan. In 1998, the Master Plan Priority Issues Study was completed. The issues addressed included:

- Technology
- Data Management
- Communications
- Risk Analysis
- Response Times
- Staffing

Six workgroups were created, and, over the course of two years, they produced a very thorough and comprehensive set of conclusions and recommendations to improve upon each of these priority issues. For the first time in the history of Montgomery Fire-Rescue, a report was crafted with input from field personnel through surveys. This allowed the end user in the stations to bring field knowledge to the work group reports. By 2011, 75% of the recommendations from the '98 report had been implemented.

The second Master Plan was approved in October 2005 and was updated and revised through a 2009 County Council-approved amendment. It covered incident response time goals and guided MCFRS planning, operations, and community outreach goals and objectives until 2015.

In 2014 the fire chief mandated the next Master Plan to cover a period of six years to better plan for a rapidly changing community, increased service needs, as well as align with the County's Capital Improvements Plan timeframe. The most recent plan, called the [2016-2022 Fire, Rescue, Emergency Medical Services and Community Risk Reduction Master Plan](#), was approved on June 28, 2016 and will sunset on June 30, 2022.

The purpose of this *Fire, Rescue, Emergency Medical Services and Community Risk Reduction Master Plan* is to set a forward-thinking, rational, and attainable blueprint for the continued delivery of effective and efficient fire, rescue, emergency medical services, special operations, and community risk reduction services to meet the all-hazards mission of the Montgomery County Fire and Rescue Service (MCFRS). The Plan guides the

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MCFRS in how best the department can meet the needs and expectations of its customers and address the overall fire-rescue related risk present in the County.

This Master Plan addresses:

- Planning Assumptions
- The annual strategic planning process and mandates
- Laws, Statutes, Standards, and Best Practices applicable to MCFRS
- MCFRS Organization and Partnerships including the:
 - Vision
 - Mission
 - Guiding principle/values
 - Goals and objectives
- Fire Department Accreditation through the Commission on Fire Accreditation International
- A Montgomery County All-Hazards Risk Assessment and elements of a Standards of Cover for MCFRS that includes emergency programmatic baseline response time performance and benchmark response time goals.
- Issues and Needs and Initiatives and Priorities that include:
 - Preparedness/Readiness
 - Resource Deployment and Staffing
 - Planning and Assessment
 - Infrastructure, Communications, IT
 - Data Analysis and Application
 - Training Health and Wellness
 - Apparatus maintenance and replacement
 - Fiscal, Support Services, and Human Resources

The Montgomery County Fire and Rescue Service is an all-hazard public safety agency providing the following services to its community and region: EMS; Fire Suppression; HazMat; Water and Ice Rescue; Aircraft Rescue Fire Fighting; Arson Investigation; Bomb Squad; Community Risk Reduction Outreach Programs and Public Education; Fire Prevention Planning and Education; Mass Casualty Response; Special Event Planning

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and Management; Disaster Management; and many non-emergency functions. The Master Plan provides goals and expectations for the department, the governing bodies of Montgomery County, and the citizens served.

Special Studies

In addition to the Master Plan and Master Plan Issues Study, three major special studies have been completed between 2000 and 2010 which have had a substantial impact on current MCFRS operations.

In 2000, a Water Supply Work Group issued a report listing recommendations and an implementation plan based on the work group's review of the County's water supply resources, deficiencies, delivery capabilities, equipment and water supply Standard Operating Procedures (SOP). Many of the recommendations have been implemented or are in progress. A few highlights are:

- Legislation mandating residential sprinklers in new single-family construction
- New rural water supply SOP
- 4 additional tankers placed in service – three front line, one reserve
- Tankers added to fire response for all streets in non-hydranted areas
- Development of GIS maps with locations of hydrants, connections and static water supplies
- Replacement of all 3" supply lines with 4" lines.

In 2001, the department concluded a yearlong study of aerial units. This study provided an analysis of the Montgomery County aerial unit inventory and needs of the County. The study reviewed the long and short-term solutions for the strategic deployment of MCFRS aerial units. The criteria for this review included response times, area risk assessment, efficiency and effectiveness of the deployment of these resources, and improvements to public safety. From this work group, recommendations were made to relocate a number of aerial units and place one truck permanently out of service.

In January 2004, ten recommendations were offered from the [Rescue Squad Work Group](#) which was formed in 2001 to review past rescue squad studies and assess rescue squad response times, locations, vehicles, tiered response, the mission and utilization of the

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rescue squad, staffing, inventory, SOPs and training required for rescue squad work.

Many of the recommendations made by this group have been implemented, including:

- Rescue squad locations at Stations 3, 15, 17, 29, R1 and R2
- Extrication equipped unit locations
- Dispatch changes to personal injury collisions based on speed limit of road, roll over, level of injury reported, and the number of cars involved
- Change in response time goals
- Training required to be squad qualified
- Equipment recommendations – thermal imagers mandated and blast shields on cascade systems.

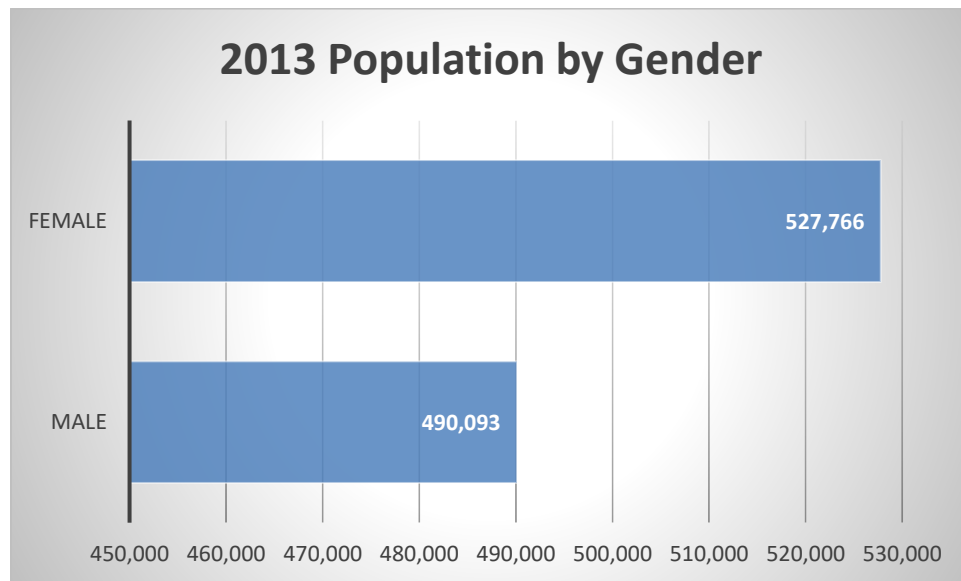
The Station Location and Resource Allocation Study is an eight-phase study reviewing current and future locations of fire stations and resources. This study is a cooperative effort between the County, local incorporated municipalities, the Maryland-National Capital Park and Planning Commission, and County residents. Major transportation plans, future County development and relocation trends are studied to determine fire and rescue needs. MCFRS is working in a proactive manner with this study to ensure the department's needs coincide with the needs of new development. For purposes of the study, the County has been divided into eight areas. Each phase studies one of the eight areas in depth and assesses the need for the relocation of existing stations and/or the need for new, additional stations. The [Phase 5 report](#) is provided as an example of one of these eight studies.

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Population

Based on a U.S. Census Bureau American Fact Finder query for 2016 population estimates, [Montgomery County is the 42nd most populous county in the United States](#). It is the 2nd largest jurisdiction in the Washington D.C. region. The estimated population grew by 7.42% between 2010 and 2016, and the population served by the Montgomery County Fire Rescue Service is estimated at 1,043,863; which is an increase of 72,086 residents since the 2010 census.

Geography	Population Estimates (as of July 1)									
	2010 Census	2010 est.	2011	2012	2013	2014	2015	2016	2017	2018
Montgomery County, Maryland	971,777	971,952	992,928	1,006,218	1,017,759	1,027,780	1,036,233	1,043,863		



Based on 5-year (2011-2015) population estimates of 1,017,759 from Factfinder Census data, the Montgomery County female population outnumbers the male population by 37,673, which is 48.1% male and 51.9% female. This equates to a ratio of 92.9 males per 100 females.

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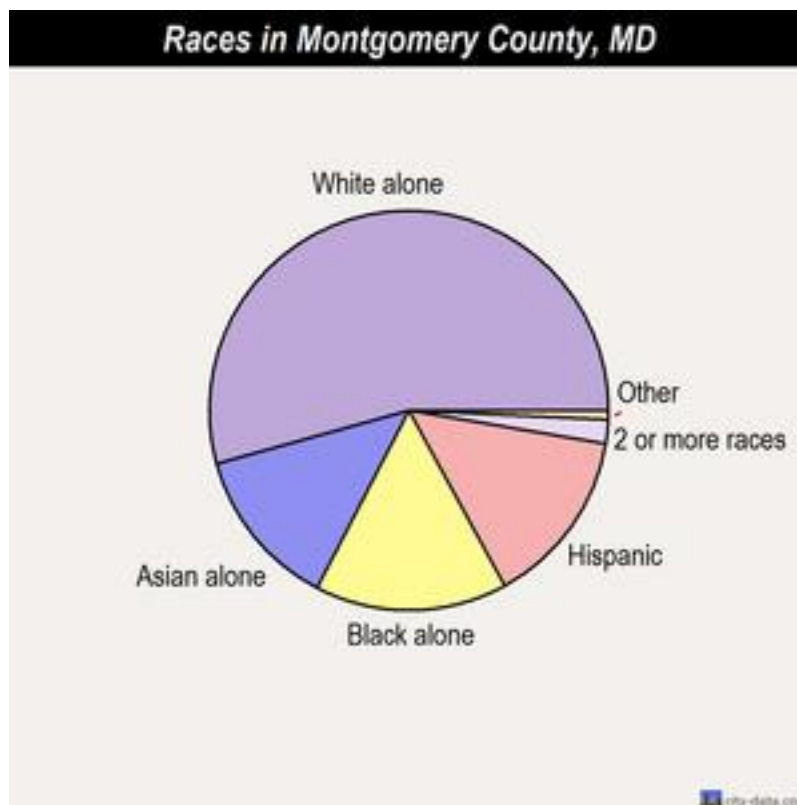
The median age of the Montgomery County population is 38.5, and the median age of residents 65 years and older is estimated at 73.7.

Subject	Montgomery County, Maryland					
	Total		Male		Female	
	Estimate	Margin of Error	Estimate	Margin of Error	Estimate	Margin of Error
Total population	1,017,859	*****	490,093	+/-88	527,766	+/-88
AGE						
Under 5 years	6.5%	+/-0.1	6.9%	+/-0.1	6.2%	+/-0.1
5 to 9 years	6.5%	+/-0.1	7.0%	+/-0.2	6.0%	+/-0.1
10 to 14 years	6.6%	+/-0.1	6.8%	+/-0.2	6.4%	+/-0.1
15 to 19 years	6.2%	+/-0.1	6.6%	+/-0.1	5.8%	+/-0.1
20 to 24 years	5.5%	+/-0.1	5.9%	+/-0.1	5.2%	+/-0.1
25 to 29 years	6.6%	+/-0.1	6.7%	+/-0.1	6.5%	+/-0.1
30 to 34 years	7.0%	+/-0.1	7.1%	+/-0.1	6.9%	+/-0.1
35 to 39 years	7.1%	+/-0.2	7.1%	+/-0.2	7.0%	+/-0.2
40 to 44 years	7.0%	+/-0.2	6.9%	+/-0.2	7.1%	+/-0.2
45 to 49 years	7.4%	+/-0.1	7.2%	+/-0.1	7.5%	+/-0.1
50 to 54 years	7.6%	+/-0.1	7.4%	+/-0.1	7.7%	+/-0.1
55 to 59 years	6.8%	+/-0.1	6.8%	+/-0.2	6.8%	+/-0.1
60 to 64 years	6.0%	+/-0.1	5.7%	+/-0.2	6.2%	+/-0.1
65 to 69 years	4.3%	+/-0.1	4.1%	+/-0.1	4.5%	+/-0.1
70 to 74 years	3.0%	+/-0.1	2.8%	+/-0.1	3.2%	+/-0.1
75 to 79 years	2.2%	+/-0.1	1.9%	+/-0.1	2.4%	+/-0.1
80 to 84 years	1.7%	+/-0.1	1.4%	+/-0.1	2.0%	+/-0.1
85 years and over	2.1%	+/-0.1	1.5%	+/-0.1	2.7%	+/-0.1
SELECTED AGE CATEGORIES						
5 to 14 years	13.1%	+/-0.1	13.8%	+/-0.1	12.4%	+/-0.1
15 to 17 years	4.0%	+/-0.1	4.2%	+/-0.1	3.8%	+/-0.1
18 to 24 years	7.8%	+/-0.1	8.3%	+/-0.1	7.2%	+/-0.1
15 to 44 years	39.4%	+/-0.1	40.4%	+/-0.1	38.5%	+/-0.1
16 years and over	79.1%	+/-0.1	77.8%	+/-0.1	80.2%	+/-0.1
18 years and over	76.4%	*****	75.1%	+/-0.1	77.6%	+/-0.1
60 years and over	19.2%	+/-0.1	17.4%	+/-0.2	20.9%	+/-0.1
62 years and over	16.6%	+/-0.1	15.0%	+/-0.1	18.2%	+/-0.1
65 years and over	13.3%	+/-0.1	11.7%	+/-0.1	14.7%	+/-0.1
75 years and over	6.0%	+/-0.1	4.8%	+/-0.1	7.0%	+/-0.1
SUMMARY INDICATORS						
Median age (years)	38.5	+/-0.2	37.0	+/-0.2	40.0	+/-0.2
Sex ratio (males per 100 females)	92.9	+/-0.1	(X)	(X)	(X)	(X)
Age dependency ratio	58.4	+/-0.1	(X)	(X)	(X)	(X)
Old-age dependency ratio	21.0	+/-0.1	(X)	(X)	(X)	(X)
Child dependency ratio	37.4	+/-0.1	(X)	(X)	(X)	(X)
PERCENT IMPUTED						
Sex	0.1%	(X)	(X)	(X)	(X)	(X)
Age	2.1%	(X)	(X)	(X)	(X)	(X)

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The 2000 census had Montgomery County's population at 873,341 with the 65 years and older population at 98,157 or 11.2% of the total population. The 2011-2015 estimates now have the 65 and older population at 135,583 or 13.3% of the total estimated County population.

The diversity of the Montgomery County population is also shifting. Based on the 2010 census, the Latino/Hispanic origin community grew to outnumber all other minority ethnicities in the County at 165,398 (17% of total population). Of the 165,398 residents, 79,593 claimed white race alone (8.2% of the 17%) and all other races with a Hispanic or Latino origin totaled 85,805 (8.8% of the 17%). The white, non-Hispanic population was the only group in Montgomery County to decline over the last 10 years dropping from 519,318 in the 2000 census to 478,765 in the 2010 census. [The majority, by 0.7%, of Montgomery County's population now consists of minorities.](#)



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Races in Montgomery County include:

- White Non-Hispanic Alone (49.3%)
- Hispanic or Latino (17.0%)
- Black Non-Hispanic Alone (16.6%)
- Asian alone (13.9%)
- Two or more races (2.6%)

Population by Race and Hispanic Origin Montgomery County, Maryland (2000 to 2010)						
Race and Hispanic Origin	2000		2010		Change, 2000 to 2010	
	Number	Population Share	Number	Population Share	Number	Percent
White (non- Hispanic)	519,318	59.5%	478,765	49.3%	-40,553	-7.8%
Hispanic or Latino	100,604	11.5%	165,398	17.0%	64,794	64.4%
Black	129,371	14.8%	161,689	16.6%	32,318	25.0%
Asian and Pacific Islander	98,632	11.3%	135,104	13.9%	36,472	37.0%
Other	25,416	2.9%	30,821	3.2%	5,405	21.3%
Total Population	873,341	100%	971,777	100%	98,436	11.3%
Minority Population	354,023	40.5%	493,012	50.7%	138,989	39.3%

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Education

[Based on a 2011-2015 U.S. Census American Community Survey](#) (5-Year Estimates), 62.9% of Montgomery County's residents 25 years of age or older maintain a college degree, 91.2% of all residents maintain a high school diploma or GED, and 8.9% do not have a high school or equivalency diploma.

Level of Education	Age 25+ (698,595)	% of Population Age 25+
Masters/Graduate/Professional Degree	218,487	31.3%
Bachelor's Degree	185,755	26.6%
Associate's Degree	35,203	5.0%
Some College, no Degree	99,932	14.3%
High School/GED	97,586	14.0%
No High School Diploma	61,632	8.9%

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Employment

Jobs in Montgomery County are diverse and varied. Based on a [Maryland Department of Labor, Licensing, and Regulation report](#), the Q1 2013 labor force averaged 534,604 with an average employment rate of 507,671. This placed the average unemployment rate at 5%. Montgomery County has a large cross-section of government and publicly supported organizations as well as many private corporations. The [chart below](#) lists the largest public and private sector employers residing in the county.

10 Largest Public Sector Employers	10 Largest Private Sector Employers
National Institutes of Health	Adventist Healthcare
Walter Reed National Military Med. Ctr.	Marriot International
Montgomery County Government	Lockheed Martin
U.S. Food and Drug Administration	Verizon
Montgomery County Public Schools	Giant Food
Nat. Oceanic and Atmospheric Admin.	Holy Cross Hospital
U.S. Nuclear Regulatory Commission	Montgomery College
Nat'l Institute of Standards and Tech.	Kaiser Foundation Health Plan
U.S. Department of Energy	Westat Research Inc.
Naval Surface Warfare Ctr., Carderock	GEICO Insurance

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Medical Care

Montgomery County is the home of [eight hospitals](#), one of which is a trauma center, and one remote standalone emergency center.

Facility	Location	# of Beds	Specialty
Suburban Hospital	Bethesda	220	Trauma Center, Cardiac Cath Lab, Stroke Center
MedStar Montgomery Medical Center	Olney	213	Cardiac Care, Stroke Center
Holy Cross Hospital	Silver Spring	443	Cardiac Cath Lab, Stroke Center
Washington Adventist Hospital	Takoma Park	252	Cardiac Care
Shady Grove Adventist Hospital	Rockville	313	Cardiac Cath Lab, Stroke Center
Walter Reed National Military Medical Center	Bethesda	345	Military care
Shady Grove Adventist Emergency Center	Germantown	21	Stand alone emergency center
Holy Cross Germantown Hospital (Opened 10/14)	Germantown	93	General acute care
National Institutes of Health	Bethesda	240	Biomedical research (no OB, ER, or trauma service)

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Elderly Residential Communities and Long-Term Care Nursing Homes

Many developments have been built in Montgomery County to address the living needs of seniors. Independent living, assisted living, and skilled nursing homes, (registered and independent), span every corner of the County. The increase of senior residents poses new challenges to MCFRS, particularly the EMS services. MCFRS is dedicated to providing the best care and education for seniors and has created a Senior Task Force that submitted a [final report](#) in 2008 to address the needs of the ever-growing elderly population.

5% of the County housing is age-restricted (55 and older). There are six major age-restricted communities in Montgomery County offering a variety of care from independent living to end-of-life care.

Facility	Residents	Acres	Living Options
Leisure World	8,500	610	Independent Living
National Lutheran Home	550	30	Independent Living, Alzheimer's Care, Nursing Home
Riderwood	2283 units	120	Independent Living, Assisted living, Nursing Home and end of life care
Charles Smith - Hebrew Home	1,000	6 buildings	Independent Living, Assisted living, Nursing Home and end of life care
Asbury Methodist Village	1194 units	130	Independent Living, Assisted living, Nursing Home and end of life care
Brooke Grove	316 units	220	Independent Living, Assisted living, Nursing Home and end of life care

In 2014, there were [34 registered long-term care nursing homes](#) with 4565 beds in Montgomery County recognized by the MD Health Care Commission

In September 2014, there were [205 independent living communities/facilities](#) that also offer assisted-living services in Montgomery County. These programs/facilities offer a total capacity of 3628 and are licensed through the Maryland Department of Health and Mental Hygiene.

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Planned Communities

Planned communities are a new development trend that is appearing throughout the County. These communities bring open spaces, community shopping centers, and mixed-residential options. This combination of amenities attracts a wide range of residents. Currently there are 5 planned communities, with more being developed.

Community	# of Homes	Acres
Lakelands	1,410	340
King Farm	3,200	430
Kentlands	1,800	352
Fallsgrove	Approx 1,200 unknown total	257
Clarksburg Town Center	1,300	268

Kentlands was the first of these communities developed in 1990. These communities are attractive to residents but pose a challenge to the fire-rescue service. The homes are all light weight construction on zero lot lines with massive exposure issues. The small roads and alley ways make for charming neighborhoods but greatly limit fire apparatus access.

The overall building stock in Montgomery County is relatively new; however, 55% of the residential units were built before 1980. The majority of these are small post-World War II era masonry cottages in the down-county area.

There are two designated historic districts - Rockville and Kensington. The homes in these areas are late 1800 Victorian balloon frame homes.

As Montgomery County became more suburban, the housing boom peaked in the 1980s in Gaithersburg and Germantown. This growth spurt brought thousands of lightweight construction single-family homes and townhomes to the area. While the majority of single-family homes in Montgomery County are average sized (1,000 – 2,000 square feet), there are a number of areas that feature homes in the 3,000 – 4,000 square foot range and higher.

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Potomac has the highest area median income along with the highest housing costs. Many homes within this area are in the 5,000 - 10,000 or greater square foot range.

Area	Population	Density/Square Mile	# Of Housing Units	Median Household Income
Germantown	86,395	7,999	31,807	\$71,226
Rockville	62,476	4,532	17,786	\$86,085
Bethesda	55,277	4,205	24,368	\$117,723
Silver Spring	71,452	7,584	31,208	\$51,653
Gaithersburg	59,933	5,902	20,674	\$54,883
Potomac	44,822	1,780	15,960	\$154,370
Poolesville	4,883	1,193	1,630	\$85,092

The majority of new high-rise residential construction in Montgomery County is concentrated in the North Bethesda area with 1,200 units in four new high-rises, with more in the planning stage. Rockville Town Center is a close second with 644 high-rise units.

Montgomery County is at the forefront of fire suppression laws. In 1976, a County law, the first of its kind, [mandated smoke detectors in all residences](#) and in 1988, legislation was passed requiring automatic fire sprinklers in all new multi-family dwellings and townhouses.

On January 14, 2004, Montgomery County Council [Bill No. 25-03](#) became effective requiring new single-family detached homes to have an automatic fire sprinkler system and encouraged the retrofitting of existing residences by offering a tax credits to homeowners.

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ISO Rating

The Insurance Services Office (ISO) is an independent organization that rates fire departments. This rating is considered by certain insurance companies when setting their homeowner and business fire insurance premiums. The major elements of a community's fire suppression ability, including location of stations, water supply access, apparatus and equipment are assessed and given a numerical grade from 1 to 10.

Montgomery County had exhibited a split rating of 4/9 for several years leading up to 2013. The ISO-4 rating represented urban areas within five miles of a fire station that are served by hydrants. The ISO-9 rating represented the rural areas of the County that are within 5 miles of a fire station but are not served by a hydrant system.

In January of 2013, MCFRS completed a rigorous ISO Fire Suppression Rating Schedule (FSRS) for both hydranted and non-hydranted areas. The evaluation process spanned over several months as the Insurance Services Offices field section evaluated needed fire flow, receipt and handling of fire alarms, water supply, and various other elements within the Fire Department. The conclusion of the evaluation yielded a successful increase in the County's Community Classification Rating in non-hydranted areas from a 9/10 (9 out of 10) to a 6/10 (6 out of 10) and a rating in hydranted areas from a 4/10 to a 3/10.

Montgomery County's split ISO rating became a 3/6; a marked increase from our previous rating of 4/9.

In [2016 ISO requested and was granted another review](#) to "gather information needed to determine a fire insurance classification that may be used in the calculation of property insurance premiums." MCFRS worked closely and cooperated with ISO officials to answer questions and provide data and analysis. On February 2, 2017, ISO notified the County Executive and Fire Chief that the Public Protection Classification (PPC) Review of the Fire Protection Service Area (FPSA: urban/hydranted) had been upgraded from a 3/10 to a 2/10 and the Fire Department Service area (FDS: rural/non-hydrant) from a 6/10 to a 4/10; thus, Montgomery County is now rated a 2/4.

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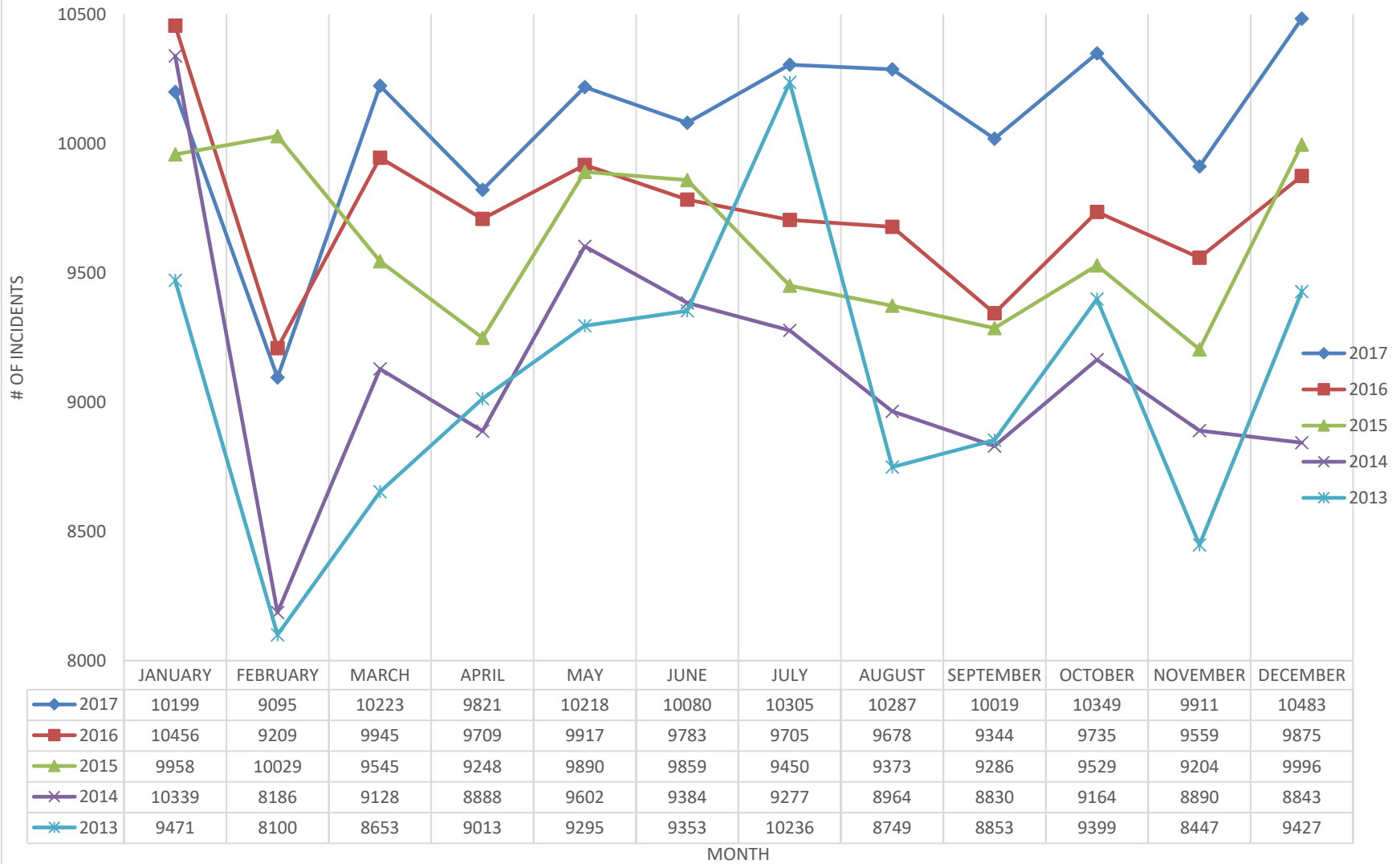
Countywide Service Demand/Work Load Charts and Graphs

A work load study can be defined as historical data-driven analysis which includes: call types, location of calls, and frequency of calls.

CY 2015		CY 2016		CY 2017	
Call Type Group 3		Call Type Group 3		Call Type Group 3	
Program	Incident Count	Program	Incident Count	Program	Incident Count
Adaptive A1F	1,676	Adaptive A1F	1,793	Adaptive A1F	1,685
Adaptive A1N	11,289	Adaptive A1N	11,667	Adaptive A1N	11,335
Adaptive A2-3	1,949	Adaptive A2-3	2,587	Adaptive A2-3	2,493
ALS1	32,187	ALS1	33,753	ALS1	36,370
ALS2	5,789	ALS2	5,603	ALS2	4,719
AFR-HR	0	AFR-HR	0	AFR-HR	0
ARF-SR	2	ARF-SR	1	ARF-SR	0
BLS	49,516	BLS	51,996	BLS	51,946
Bomb Squad	492	Bomb Squad	585	Bomb Squad	269
FFA SRHR	56	FFA SRHR	52	FFA SRHR	50
Full Assignment	962	Full Assignment	569	Full Assignment	579
Hazmat-LR	11	Hazmat-LR	11	Hazmat-LR	8
Hazmat-MR	92	Hazmat-MR	86	Hazmat-MR	86
Hazmat-HR	47	Hazmat-HR	20	Hazmat-HR	13
Hazmat-SR	38	Hazmat-SR	39	Hazmat-SR	40
Service Call	8,614	Service Call	7,449	Service Call	7,749
System	111	System	74	System	54
Tech. Rescue	14	Tech. Rescue	9	Tech. Rescue	15
Water-Ice MR	17	Water-Ice MR	31	Water-Ice MR	14
Water-Ice HR	4	Water-Ice HR	4	Water-Ice HR	6
Water-Ice SR	49	Water-Ice SR	45	Water-Ice SR	52
In-County Total	112,915	In-County Total	116,374	In-County Total	117,483
Out of County & Federal FD Mutual/Auto Aid	3510	Out of County & Federal FD Mutual/Auto Aid	3999	Out of County & Federal FD Mutual/Auto Aid	3450
Total	116,425		120,373		120,933

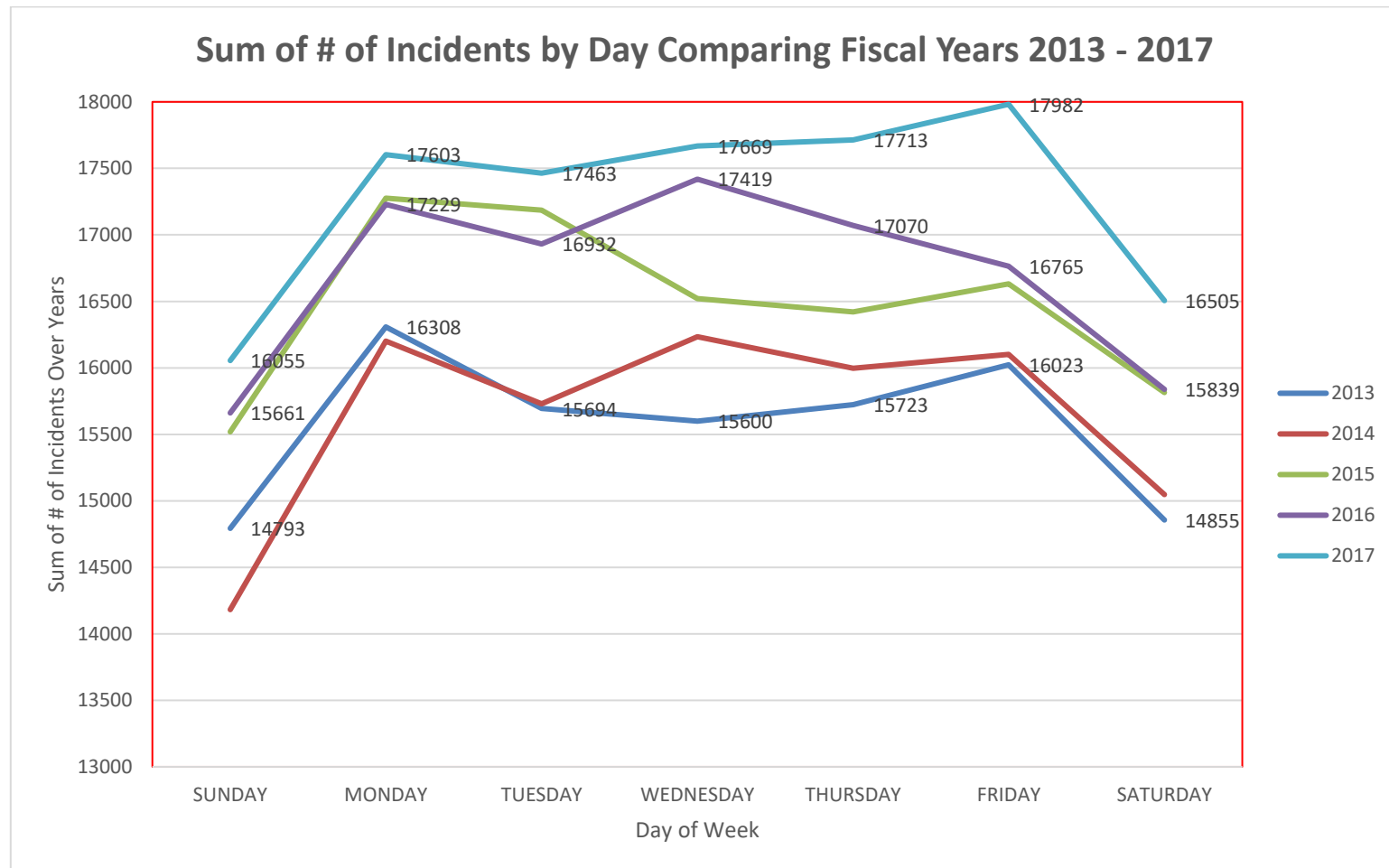
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OF INCIDENTS BY MONTH COMPARING FISCAL YEARS 2013 - 2017



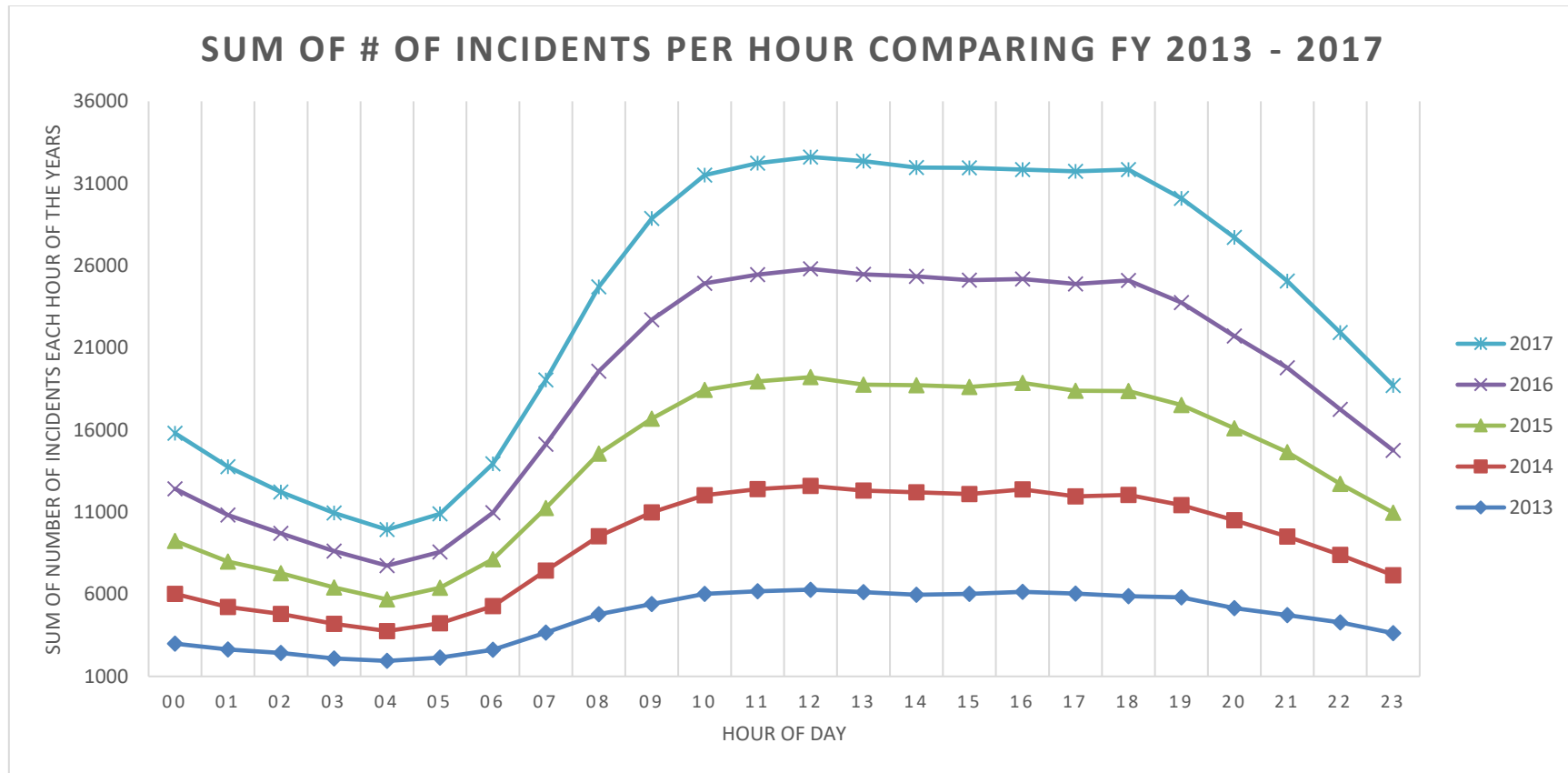
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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station Descriptions and Multi-Year Incident Counts and Trending Analysis

The apparatus housed listed on the following pages are, in general, controlled in the Computer-Aided Dispatch System. There are additional redundant resources i.e. engines etc., housed within some of these stations that can be used as reserve apparatus or additional capabilities when staffed by volunteer personnel or additional career personnel when needed

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 1

Battalion 1

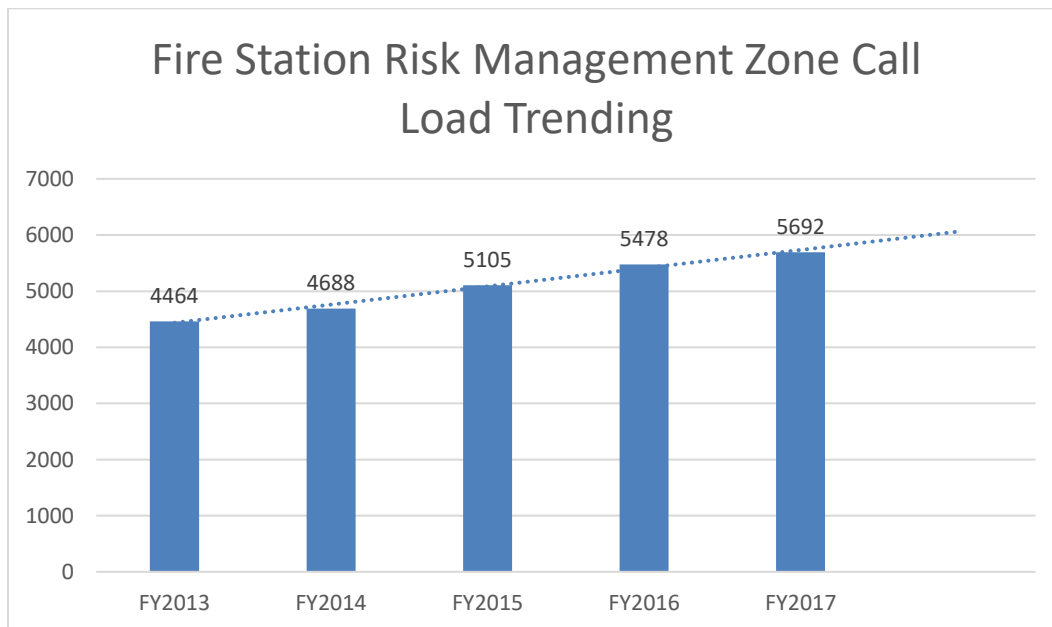
Silver Spring Station

8110 Georgia Avenue, Silver Spring



Description

- Ownership: County
- Apparatus Housed: Paramedic Engine, Ambulance, Medic, Decon Unit
- First Due Area: 2.08 mi²
- Number of Unique Risk Management Zones (box areas): 22
- Predominant Population Density Zone: Metropolitan



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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 1 (Metropolitan Density Zone) Fiscal Year Response Area: Number of DISPATCHED ¹ Incidents Aggregated by Accreditation Program							
Accreditation Program	Risk	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS1	MR	1152	1232	1388	1530	1671	
ALS2	HR	211	243	244	305	239	
BLS	LR	1997	2153	2218	2408	2574	
Fire Full Assignment (FFA)	HR	58	48	59	21	26	
FFA-Highrise (FFA-SRHR)	SR	N/A	N/A	N/A	15	16	
FFA-Non-hydranted Area	SR	0	0	0	0	0	
Adaptive-1F	LR	56	58	51	56	51	
Adaptive-1N	LR	499	491	558	583	565	
Adaptive-2-3	MR	89	70	94	96	134	
Hazmat Low Risk ²	LR	1	0	0	0	1	
Hazmat Moderate Risk	MR	1	0	5	3	3	
Hazmat High Risk	HR	5	4	6	0	2	
Hazmat Special Risk	SR	1	5	8	0	0	
Technical Rescue	SR	0	0	1	0	0	
Water/Ice Rescue Moderate	MR	0	0	1	0	0	
Water/Ice Rescue High	HR	0	0	0	0	0	
Water/Ice Rescue Special	SR	0	0	0	0	0	
ARFF High Risk	HR	0	0	0	0	0	
ARFF Special Risk	SR	0	0	0	0	0	
Bomb Squad Moderate Risk	MR						
Bomb Squad High Risk	HR						
Bomb Squad Special Risk	SR						
Bomb Squad TOTAL		51	49	53	67	61	
Non-Accreditation Counts							
Service Call ³		343	335	419	394	349	
Mutual Aid		0	0	0	0	0	
Total Incident Counts		4464	4688	5105	5478	5692	0
Total Aggregated by Overarching Program Area		FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS		1363	1475	1632	1835	1910	0
BLS		1997	2153	2218	2408	2574	0
Fire Full Assignment		58	48	59	36	42	0
Adaptive [*]		644	619	703	735	750	0
Hazmat [*]		8	9	19	3	6	0
Technical Rescue		0	0	1	0	0	0
Water/Ice Rescue		0	0	1	0	0	0
Aircraft Rescue Firefighting		0	0	0	0	0	0
Bomb Squad Responses		51	49	53	67	61	0

¹ Dispatched incident totals offer a way of analyzing overall system demand by Station Response Area

² Hazmat low risk (LR) incidents are counted but not measured

³ Service calls also include BLS routine and occasional ALS emergency interfacility transports

Note: Adaptive responses now include inside and outside natural gas/LPG leaks, except high pressure 2" or > which are Hazmat

Note: Hazmat incidents counts no longer include inside and outside gas/LPG leaks except high pressure 2" or >

Note: During FY16 "light smoke conditions" in buildings other than high-rise/high-risk became an Adaptive 2-3 instead of a FFA response

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 2

Battalion 1

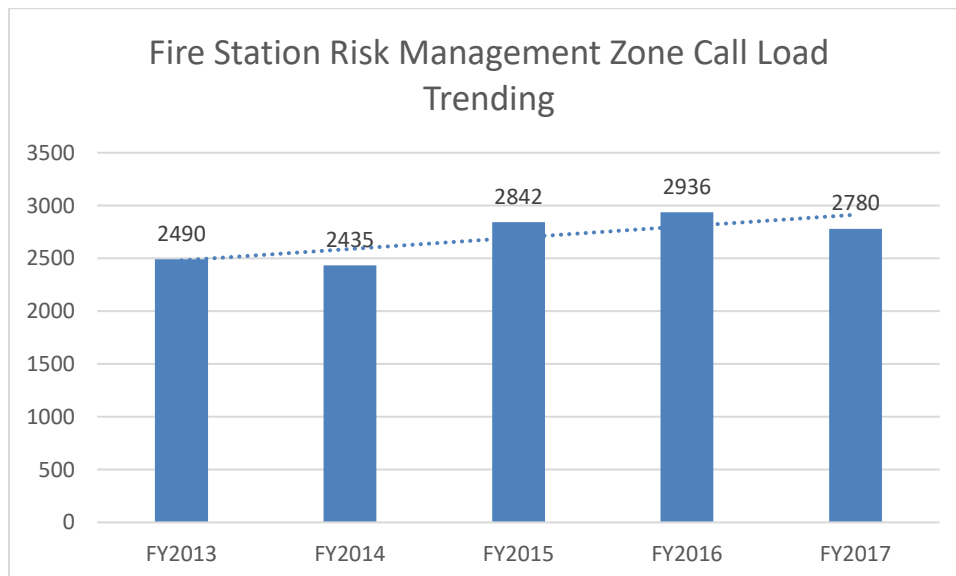
Takoma Park Station

7201 Carroll Avenue, Takoma Park



Description

- Ownership: County
- Apparatus Housed: Engine, Ambulance
- First Due Area: 2.54 mi²
- Number of Unique Risk Management Zones (box areas): 16
- Predominant Population Density Zone: Metropolitan



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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 2 (Metropolitan Density Zone) Fiscal Year Response Area: Number of DISPATCHED ¹ Incidents Aggregated by Accreditation Program							
Accreditation Program	Risk	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS1	MR	701	621	801	828	780	
ALS2	HR	116	139	153	171	130	
BLS	LR	1040	1058	1206	1239	1147	
Fire Full Assignment (FFA)	HR	50	28	36	22	18	
FFA-Highrise (FFA-SRHR)	SR	N/A	N/A	N/A	8	5	
FFA-Non-hydranted Area	SR	0	0	0	0	0	
Adaptive-1F	LR	38	35	38	38	46	
Adaptive-1N	LR	257	251	264	292	312	
Adaptive-2-3	MR	53	59	60	69	104	
Hazmat Low Risk ²	LR	0	1	0	1	1	
Hazmat Moderate Risk	MR	1	1	1	2	1	
Hazmat High Risk	HR	2	2	2	0	0	
Hazmat Special Risk	SR	0	1	1	1	0	
Technical Rescue	SR	0	0	1	0	0	
Water/Ice Rescue Moderate	MR	0	0	0	0	0	
Water/Ice Rescue High	HR	0	0	0	0	0	
Water/Ice Rescue Special	SR	0	0	0	0	0	
ARFF High Risk	HR	0	0	0	0	0	
ARFF Special Risk	SR	0	0	0	0	0	
Bomb Squad Moderate Risk	MR						
Bomb Squad High Risk	HR						
Bomb Squad Special Risk	SR						
Bomb Squad TOTAL		4	4	2	3	2	
Non-Accreditation Counts							
Service Call ³		228	235	277	262	234	
Mutual Aid							
Total Incident Counts		2490	2435	2842	2936	2780	0
Total Aggregated by Overarching Program Area		FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS		817	760	954	999	910	0
BLS		1040	1058	1206	1239	1147	0
Fire Full Assignment		50	28	36	30	23	0
Adaptive [*]		348	345	362	399	462	0
Hazmat [*]		3	5	4	4	2	0
Technical Rescue		0	0	0	0	0	0
Water/Ice Rescue		0	0	0	0	0	0
Aircraft Rescue Firefighting		0	0	0	0	0	0
Bomb Squad Responses		4	4	2	3	2	0

¹ Dispatched incident totals offer a way of analyzing overall system demand by Station Response Area

² Hazmat low risk (LR) incidents are counted but not measured

³ Service calls also include BLS routine and occasional ALS emergency interfacility transports

Note: Adaptive responses now include inside and outside natural gas/LPG leaks, except high pressure 2" or > which are Hazmat

Note: Hazmat incidents counts no longer include inside and outside gas/LPG leaks except high pressure 2" or >

Note: During FY16 "light smoke conditions" in buildings other than high-rise/high-risk became an Adaptive 2-3 instead of a FFA response

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 3

Battalion 3

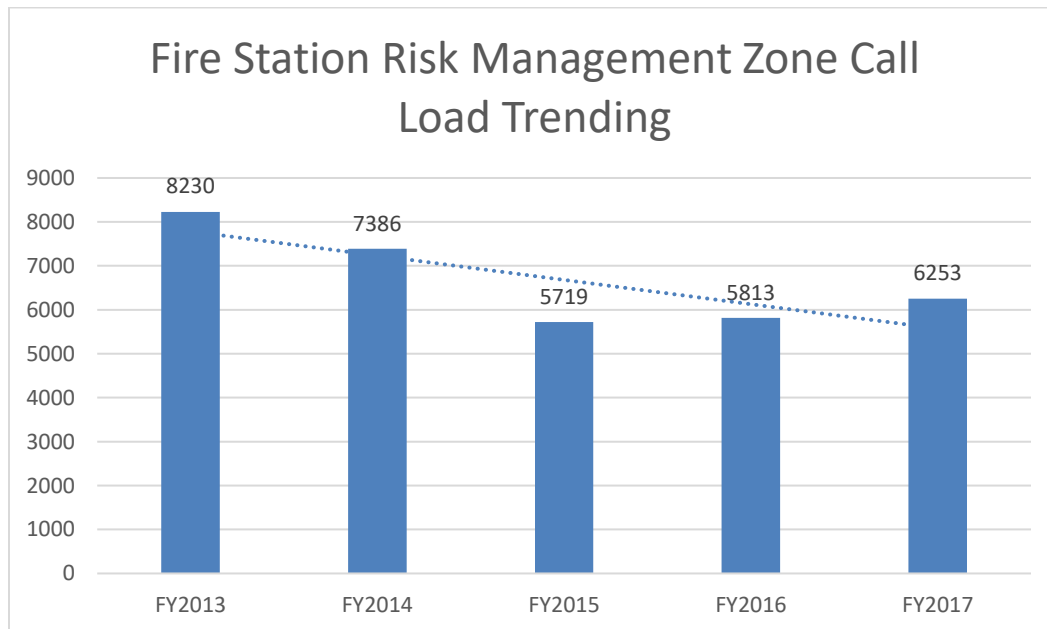
Rockville Station

380 Hungerford Drive, Rockville



Description

- Ownership: Volunteer
- Apparatus Housed: Paramedic Engine, Truck, Squad, Ambulance, Medic Unit
- First Due Area: 14.32 mi²
- Number of Unique Risk Management Zones (box areas): 65
- Predominant Population Density Zone: Metropolitan



Note: Fire Station 32 opened for the first time on 2/27/14 which explains the decrease in runs in Station 3's area beginning in FY15.

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 3 (Metropolitan Density Zone) Fiscal Year Response Area: Number of DISPATCHED ¹ Incidents Aggregated by Accreditation Program							
Accreditation Program	Risk	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS1	MR	2393	2048	1599	1605	1838	
ALS2	HR	373	305	265	311	244	
BLS	LR	3869	3412	2559	2745	2957	
Fire Full Assignment (FFA)	HR	65	71	57	37	31	
FFA-Highrise (FFA-SRHR)	SR	N/A	N/A	N/A	3	1	
FFA-Non-hydranted Area	SR	0	0	0	0	0	
Adaptive-1F	LR	152	118	91	117	81	
Adaptive-1N	LR	765	778	596	529	614	
Adaptive-2-3	MR	107	123	97	122	135	
Hazmat Low Risk ²	LR	2	1	1	0	1	
Hazmat Moderate Risk	MR	1	0	4	4	6	
Hazmat High Risk	HR	8	4	4	1	0	
Hazmat Special Risk	SR	3	1	1	0	1	
Technical Rescue	SR	0	0	1	1	4	
Water/Ice Rescue Moderate	MR	1	0	0	1	0	
Water/Ice Rescue High	HR	0	0	0	0	0	
Water/Ice Rescue Special	SR	0	0	0	0	0	
ARFF High Risk	HR	0	0	0	0	0	
ARFF Special Risk	SR	0	0	0	0	0	
Bomb Squad Moderate Risk	MR						
Bomb Squad High Risk	HR						
Bomb Squad Special Risk	SR						
Bomb Squad TOTAL		33	35	32	33	46	
Non-Accreditation Counts							
Service Call ³		458	490	412	304	294	
Mutual Aid							
Total Incident Counts		8230	7386	5719	5813	6253	0
Total Aggregated by Overarching Program Area		FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS		2766	2353	1864	1916	2082	0
BLS		3869	3412	2559	2745	2957	0
Fire Full Assignment		65	71	57	40	32	0
Adaptive ⁴		1024	1019	784	768	830	0
Hazmat ⁵		14	6	10	5	8	0
Technical Rescue		0	0	0	1	0	0
Water/Ice Rescue		1	0	0	1	0	0
Aircraft Rescue Firefighting		0	0	0	0	0	0
Bomb Squad Responses		33	35	32	33	46	0

¹ Dispatched incident totals offer a way of analyzing overall system demand by Station Response Area

² Hazmat low risk (LR) incidents are counted but not measured

³ Service calls also include BLS routine and occasional ALS emergency interfacility transports

Note: Adaptive responses now include inside and outside natural gas/LPG leaks, except high pressure 2" or > which are Hazmat

Note: Hazmat incidents counts no longer include inside and outside gas/LPG leaks except high pressure 2" or >

Note: During FY16 "light smoke conditions" in buildings other than high-rise/high-risk became an Adaptive 2-3 instead of a FFA response

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 4

Battalion 4

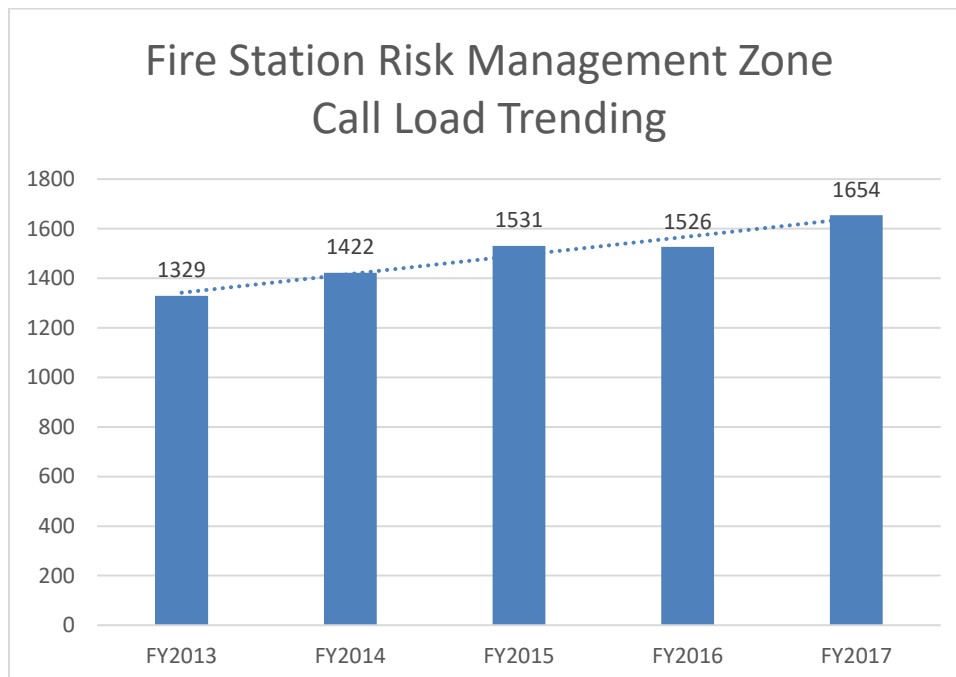
Sandy Spring Station

17921 Brooke Road, Sandy Spring



Description

- Ownership: Volunteer (51%), County (49%)
- Apparatus Housed: Paramedic Engine, Tanker, Ambulance, Boat
- First Due Area: 20 mi²
- Number of Unique Risk Management Zones (box areas): 35
- Predominant Population Density Zone: Rural



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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 4 (Rural Density Zone) Fiscal Year Response Area: Number of DISPATCHED ¹ Incidents Aggregated by Accreditation Program							
Accreditation Program	Risk	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS1	MR	359	384	441	440	497	
ALS2	HR	67	58	64	75	58	
BLS	LR	597	658	716	712	784	
Fire Full Assignment Hydranted	HR	9	14	11	11	7	
FFA-Highrise (FFA-SRHR)	SR	N/A	N/A	N/A	0	0	
FFA-Non-hydranted Area	SR	3	2	4	5	2	
Adaptive-1F	LR	30	21	22	39	31	
Adaptive-1N	LR	169	175	188	173	170	
Adaptive-2-3	MR	11	19	20	18	26	
Hazmat Low Risk ²	LR	0	0	0	0	0	
Hazmat Moderate Risk	MR	0	0	0	2	2	
Hazmat High Risk	HR	2	2	0	0	0	
Hazmat Special Risk	SR	0	0	0	0	0	
Technical Rescue	SR	0	0	0	0	0	
Water/Ice Rescue Moderate	MR	3	6	0	0	1	
Water/Ice Rescue High	HR	0	0	0	0	1	
Water/Ice Rescue Special	SR	0	0	0	0	0	
ARFF High Risk	HR	0	0	0	0	0	
ARFF Special Risk	SR	0	0	0	0	0	
Bomb Squad Moderate Risk	MR						
Bomb Squad High Risk	HR						
Bomb Squad Special Risk	SR						
Bomb Squad TOTAL		1	5	1	2	0	
Non-Accreditation Counts							
Service Call ³		78	78	64	49	75	
Total Incident Counts							
		1329	1422	1531	1526	1654	0
Total Aggregated by Overarching Program Area		FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS		426	442	505	515	555	0
BLS		597	658	716	712	784	0
Fire Full Assignment		12	16	15	16	9	0
Adaptive ⁴		210	215	230	230	227	0
Hazmat ⁵		2	2	0	2	2	0
Technical Rescue		0	0	0	0	1	0
Water/Ice Rescue		3	6	0	0	2	0
Aircraft Rescue Firefighting		0	0	0	0	0	0
Bomb Squad Responses		1	5	1	2	0	0

¹ Dispatched incident totals offer a way of analyzing overall system demand by Station Response Area

² Hazmat low risk (LR) incidents are counted but not measured

³ Service calls also include BLS routine and occasional ALS emergency interfacility transports

Note: Adaptive responses now include inside and outside natural gas/LPG leaks, except high pressure 2" or > which are Hazmat

Note: Hazmat incidents counts no longer include inside and outside gas/LPG leaks except high pressure 2" or >

Note: During FY16 "light smoke conditions" in buildings other than high-rise/high-risk became an Adaptive 2-3 instead of a FFA response

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 5

Battalion 4

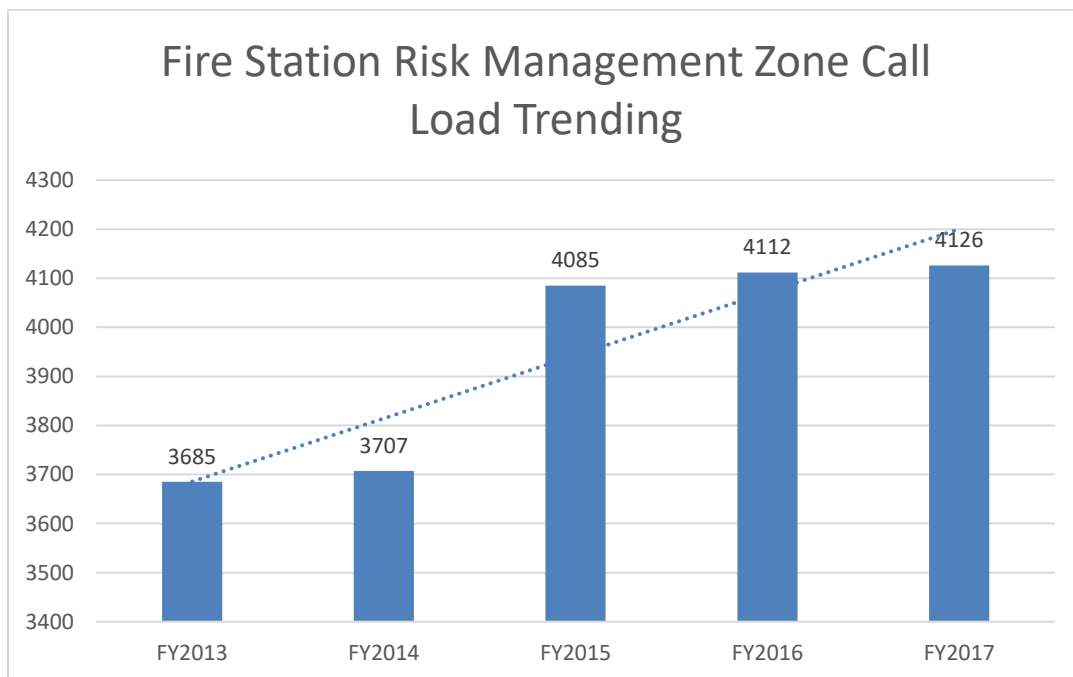
Kensington Station

10620 Connecticut Avenue, Kensington



Description

- Ownership: Volunteer
- Apparatus Housed: Paramedic Engine, Ambulance, Brush Truck
- First Due Area: 6.01 mi²
- Number of Unique Risk Management Zones (box areas): 19
- Predominant Population Density Zone: Metropolitan



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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 5 (Metropolitan Density Zone) Fiscal Year Response Area: Number of DISPATCHED ¹ Incidents Aggregated by Accreditation Program							
Accreditation Program	Risk	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS1	MR	1111	1049	1191	1187	1265	
ALS2	HR	181	177	181	191	183	
BLS	LR	1577	1717	1873	1864	1797	
Fire Full Assignment Hydranted	HR	23	26	33	11	17	
FFA-Highrise (FFA-SRHR)	SR	N/A	N/A	N/A	0	0	
FFA-Non-hydranted Area	SR	0	0	0	0	0	
Adaptive-1F	LR	46	41	38	54	61	
Adaptive-1N	LR	399	320	349	400	376	
Adaptive-2-3	MR	51	45	54	59	89	
Hazmat Low Risk ²	LR	1	1	0	1	2	
Hazmat Moderate Risk	MR	0	1	1	9	3	
Hazmat High Risk	HR	3	2	1	0	1	
Hazmat Special Risk	SR	0	1	0	1	0	
Technical Rescue	SR	0	0	0	0	0	
Water/Ice Rescue Moderate	MR	1	2	1	0	0	
Water/Ice Rescue High	HR	0	0	0	0	0	
Water/Ice Rescue Special	SR	0	0	0	0	0	
ARFF High Risk	HR	0	0	0	0	0	
ARFF Special Risk	SR	0	0	0	0	0	
Bomb Squad Moderate Risk	MR						
Bomb Squad High Risk	HR						
Bomb Squad Special Risk	SR						
Bomb Squad TOTAL		19	16	11	12	18	
Non-Accreditation Counts							
Service Call ³		273	309	352	323	314	
Total Incident Counts							
		3685	3707	4085	4112	4126	0
Total Aggregated by Overarching Program Area		FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS		1292	1226	1372	1378	1448	0
BLS		1577	1717	1873	1864	1797	0
Fire Full Assignment		23	26	33	11	17	0
Adaptive ⁴		496	406	441	513	526	0
Hazmat ⁵		4	5	2	11	6	0
Technical Rescue		0	0	1	0	0	0
Water/Ice Rescue		1	2	1	0	0	0
Aircraft Rescue Firefighting		0	0	0	0	0	0
Bomb Squad Responses		19	16	11	12	18	0

¹ Dispatched incident totals offer a way of analyzing overall system demand by Station Response Area

² Hazmat low risk (LR) incidents are counted but not measured

³ Service calls also include BLS routine and occasional ALS emergency interfacility transports

Note: Adaptive responses now include inside and outside natural gas/LPG leaks, except high pressure 2" or > which are Hazmat

Note: Hazmat incidents counts no longer include inside and outside gas/LPG leaks except high pressure 2" or >

Note: During FY16 "light smoke conditions" in buildings other than high-rise/high-risk became an Adaptive 2-3 instead of a FFA response

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 6

Battalion 2

Bethesda Station

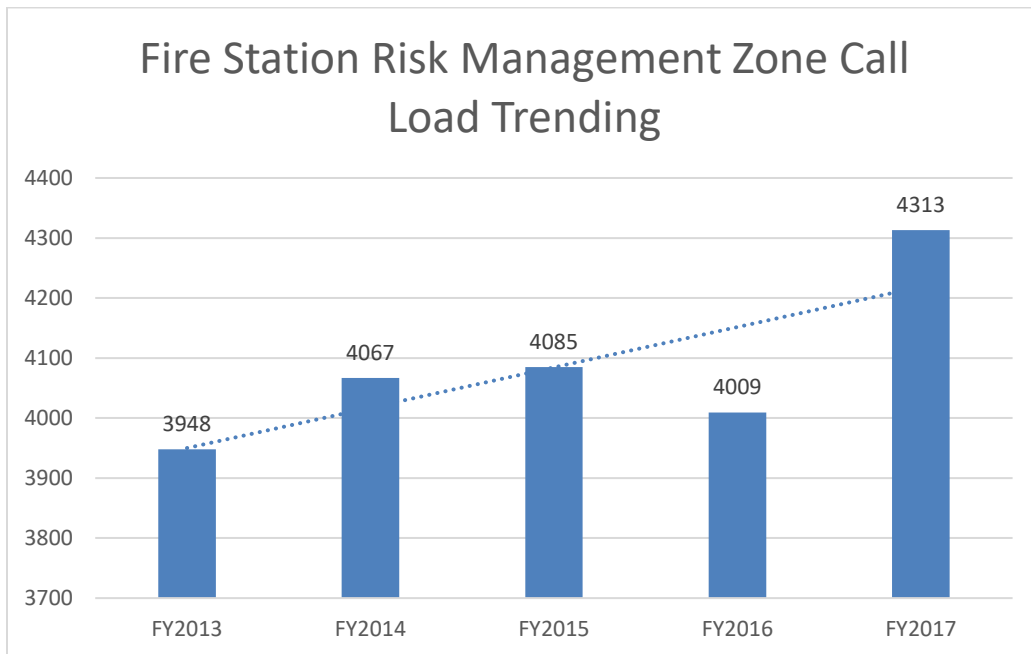
6600 Wisconsin Avenue, Bethesda



Description

- Ownership: Volunteer
- Apparatus Housed: Paramedic Engine, Truck, Ambulance*
- First Due Area: 3.95 mi²
- Number of Unique Risk Management Zones (box areas): 16
- Predominant Population Density Zone: Metropolitan

*Monday-Friday during the day only



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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 6 (Metropolitan Density Zone) Fiscal Year Response Area: Number of DISPATCHED ¹ Incidents Aggregated by Accreditation Program							
Accreditation Program	Risk	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS1	MR	953	936	966	982	1153	
ALS2	HR	215	222	201	206	173	
BLS	LR	1514	1545	1478	1482	1614	
Fire Full Assignment Hydranted	HR	38	37	45	29	20	
FFA-Highrise (FFA-SRHR)	SR	N/A	N/A	N/A	3	3	
FFA-Non-hydranted Area	SR	0	0	0	0	0	
Adaptive-1F	LR	53	50	30	44	68	
Adaptive-1N	LR	724	749	818	783	766	
Adaptive-2-3	MR	56	68	86	94	101	
Hazmat Low Risk ²	LR	0	0	0	1	0	
Hazmat Moderate Risk	MR	0	0	0	6	2	
Hazmat High Risk	HR	5	3	4	1	0	
Hazmat Special Risk	SR	4	4	7	2	3	
Technical Rescue	SR	1	1	1	1	1	
Water/Ice Rescue Moderate	MR	0	0	0	0	0	
Water/Ice Rescue High	HR	0	0	0	0	0	
Water/Ice Rescue Special	SR	0	0	0	0	0	
ARFF High Risk	HR	0	0	0	0	0	
ARFF Special Risk	SR	0	0	0	0	0	
Bomb Squad Moderate Risk	MR						
Bomb Squad High Risk	HR						
Bomb Squad Special Risk	SR						
Bomb Squad TOTAL		37	54	43	63	61	
Non-Accreditation Counts							
Service Call ³		348	398	406	312	348	
Total Incident Counts							
		3948	4067	4085	4009	4313	0
Total Aggregated by Overarching Program Area		FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS		1168	1158	1167	1188	1326	0
BLS		1514	1545	1478	1482	1614	0
Fire Full Assignment		38	37	45	32	23	0
Adaptive ⁴		833	867	934	921	935	0
Hazmat ⁵		9	7	11	10	5	0
Technical Rescue		1	1	0	0	0	0
Water/Ice Rescue		0	0	0	0	0	0
Aircraft Rescue Firefighting		0	0	0	0	0	0
Bomb Squad Responses		37	54	43	63	61	0

¹ Dispatched incident totals offer a way of analyzing overall system demand by Station Response Area

² Hazmat low risk (LR) incidents are counted but not measured

³ Service calls also include BLS routine and occasional ALS emergency interfacility transports

Note: Adaptive responses now include inside and outside natural gas/LPG leaks, except high pressure 2" or > which are Hazmat

Note: Hazmat incidents counts no longer include inside and outside gas/LPG leaks except high pressure 2" or >

Note: During FY16 "light smoke conditions" in buildings other than high-rise/high-risk became an Adaptive 2-3 instead of a FFA response

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 7

Battalion 2

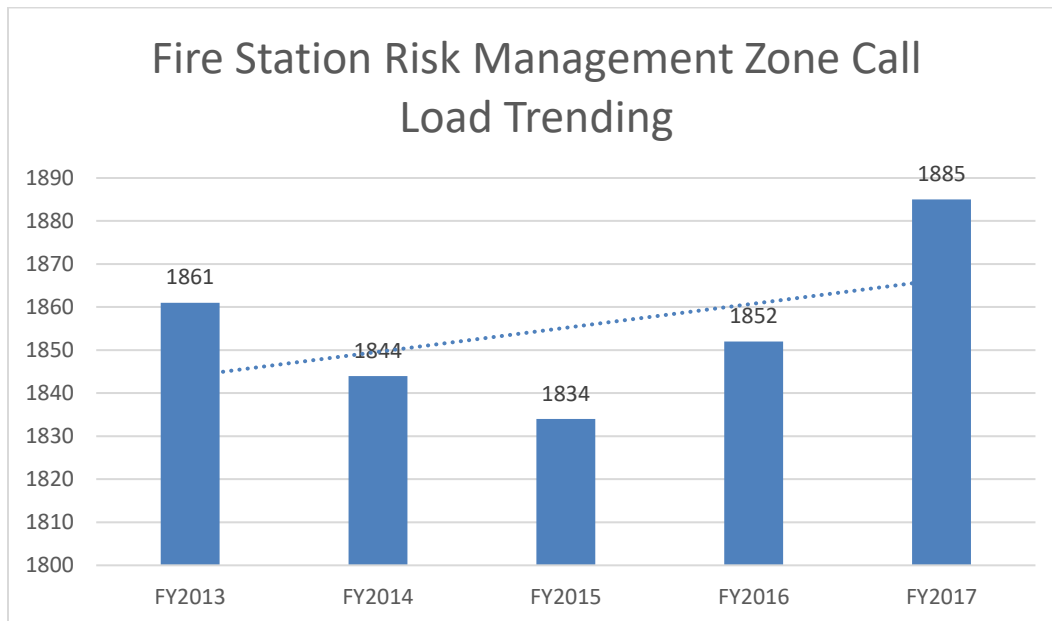
Chevy Chase Station

8001 Connecticut Avenue, Chevy Chase



Description

- Ownership: Volunteer
- Apparatus Housed: Paramedic Engine, Hazmat Unit
- Specialty Team: Hazmat
- First Due Area: 3.58 mi²
- Number of Unique Risk Management Zones (box areas): 18
- Predominant Population Density Zone: Metropolitan



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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 7 (Metropolitan Density Zone) Fiscal Year Response Area: Number of DISPATCHED ¹ Incidents Aggregated by Accreditation Program							
Accreditation Program	Risk	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS1	MR	401	368	413	404	440	
ALS2	HR	80	71	76	84	49	
BLS	LR	793	890	819	909	925	
Fire Full Assignment Hydranted	HR	19	17	16	12	5	
FFA-Highrise (FFA-SRHR)	SR	N/A	N/A	N/A	2	0	
FFA-Non-hydranted Area	SR	0	0	0	0	0	
Adaptive-1F	LR	42	41	29	28	29	
Adaptive-1N	LR	240	205	240	225	228	
Adaptive-2-3	MR	28	18	27	28	44	
Hazmat Low Risk ²	LR	0	0	0	0	0	
Hazmat Moderate Risk	MR	0	0	1	4	0	
Hazmat High Risk	HR	0	2	1	0	0	
Hazmat Special Risk	SR	1	0	1	0	0	
Technical Rescue	SR	0	0	0	0	0	
Water/Ice Rescue Moderate	MR	0	0	1	0	0	
Water/Ice Rescue High	HR	0	0	0	0	0	
Water/Ice Rescue Special	SR	0	0	0	0	0	
ARFF High Risk	HR	0	0	0	0	0	
ARFF Special Risk	SR	0	0	0	0	0	
Bomb Squad Moderate Risk	MR						
Bomb Squad High Risk	HR						
Bomb Squad Special Risk	SR						
Bomb Squad TOTAL		9	10	6	3	6	
Non-Accreditation Counts							
Service Call ³		248	222	204	153	159	
Total Incident Counts							
		1861	1844	1834	1852	1885	0
Total Aggregated by Overarching Program Area		FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS		481	439	489	488	489	0
BLS		793	890	819	909	925	0
Fire Full Assignment		19	17	16	14	5	0
Adaptive ⁴		310	264	296	281	301	0
Hazmat ⁵		1	2	3	4	0	0
Technical Rescue		0	0	1	0	0	0
Water/Ice Rescue		0	0	1	0	0	0
Aircraft Rescue Firefighting		0	0	0	0	0	0
Bomb Squad Responses		9	10	6	3	6	0

¹ Dispatched incident totals offer a way of analyzing overall system demand by Station Response Area

² Hazmat low risk (LR) incidents are counted but not measured

³ Service calls also include BLS routine and occasional ALS emergency interfacility transports

Note: Adaptive responses now include inside and outside natural gas/LPG leaks, except high pressure 2" or > which are Hazmat

Note: Hazmat incidents counts no longer include inside and outside gas/LPG leaks except high pressure 2" or >

Note: During FY16 "light smoke conditions" in buildings other than high-rise/high-risk became an Adaptive 2-3 instead of a FFA response

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 8

Battalion 3

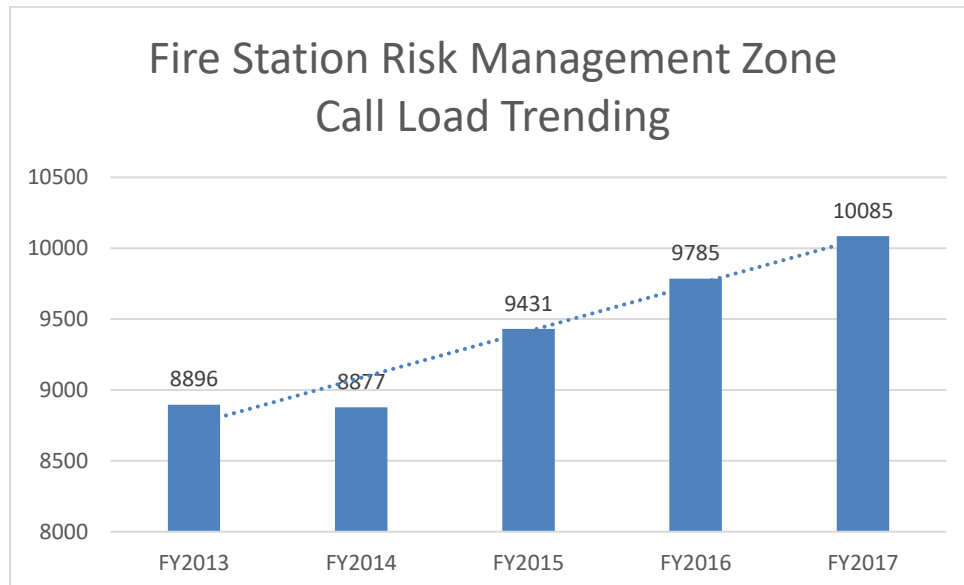
Gaithersburg Station

801 Russell Avenue, Gaithersburg



Description

- Ownership: Volunteer
- Apparatus Housed: Paramedic Engine, Paramedic Aerial Tower, Ambulance, 2 Medic Units, Brush Truck, ATV
- First Due Area: 12.73 mi²
- Number of Unique Risk Management Zones (box areas): 25
- Predominant Population Density Zone: Metropolitan



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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 8 (Metropolitan Density Zone) Fiscal Year Response Area: Number of DISPATCHED ¹ Incidents Aggregated by Accreditation Program							
Accreditation Program	Risk	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS1	MR	2778	2670	2968	3092	3394	
ALS2	HR	470	491	491	578	462	
BLS	LR	4061	4128	4319	4514	4622	
Fire Full Assignment Hydranted	HR	97	97	94	62	48	
FFA-Highrise (FFA-SRHR)	SR	N/A	N/A	N/A	1	0	
FFA-Non-hydranted Area	SR	0	0	0	0	0	
Adaptive-1F	LR	148	135	126	161	144	
Adaptive-1N	LR	651	664	645	683	719	
Adaptive-2-3	MR	147	133	159	171	192	
Hazmat Low Risk ²	LR	0	0	0	1	0	
Hazmat Moderate Risk	MR	0	0	6	12	11	
Hazmat High Risk	HR	12	11	9	0	0	
Hazmat Special Risk	SR	2	4	4	3	1	
Technical Rescue	SR	0	0	0	0	0	
Water/Ice Rescue Moderate	MR	2	3	2	0	2	
Water/Ice Rescue High	HR	0	0	0	0	0	
Water/Ice Rescue Special	SR	0	0	0	0	0	
ARFF High Risk	HR	0	0	0	0	0	
ARFF Special Risk	SR	0	0	0	0	0	
Bomb Squad Moderate Risk	MR						
Bomb Squad High Risk	HR						
Bomb Squad Special Risk	SR						
Bomb Squad TOTAL		29	29	24	32	33	
Non-Accreditation Counts							
Service Call ³		499	512	584	475	457	
Total Incident Counts							
		8896	8877	9431	9785	10085	0
Total Aggregated by Overarching Program Area		FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS		3248	3161	3459	3670	3856	0
BLS		4061	4128	4319	4514	4622	0
Fire Full Assignment		97	97	94	63	48	0
Adaptive ⁴		946	932	930	1015	1055	0
Hazmat ⁵		14	15	19	16	12	0
Technical Rescue		0	0	2	0	2	0
Water/Ice Rescue		2	3	2	0	2	0
Aircraft Rescue Firefighting		0	0	0	0	0	0
Bomb Squad Responses		29	29	24	32	33	0

¹ Dispatched incident totals offer a way of analyzing overall system demand by Station Response Area

² Hazmat low risk (LR) incidents are counted but not measured

³ Service calls also include BLS routine and occasional ALS emergency interfacility transports

Note: Adaptive responses now include inside and outside natural gas/LPG leaks, except high pressure 2" or > which are Hazmat

Note: Hazmat incidents counts no longer include inside and outside gas/LPG leaks except high pressure 2" or >

Note: During FY16 "light smoke conditions" in buildings other than high-rise/high-risk became an Adaptive 2-3 instead of a FFA response

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 9

Battalion 5

Hyattstown Station

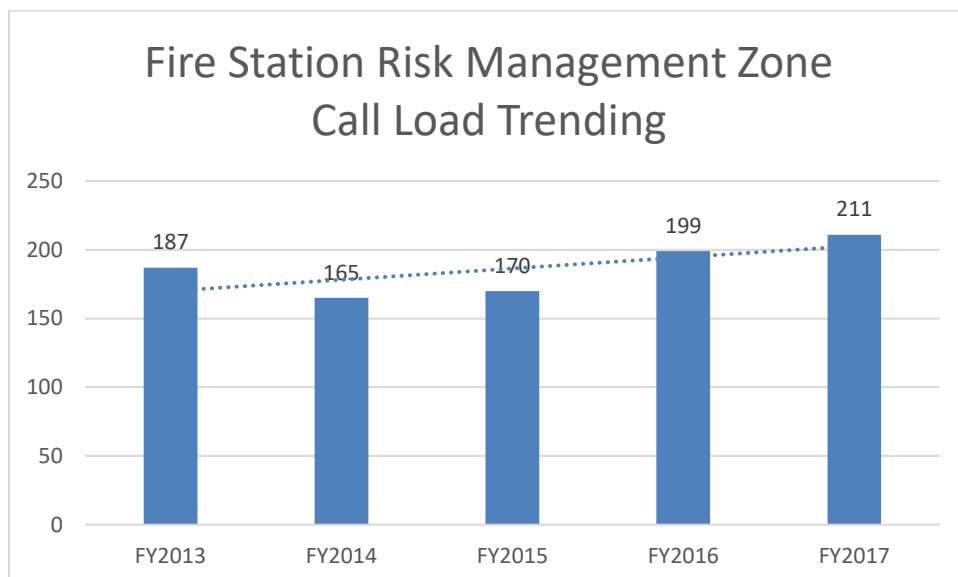
25801 Frederick Road, Clarksburg



Description

- Ownership: Volunteer
- Apparatus Housed: Paramedic Rescue Engine, Ambulance*, Tanker, 2 Brush Trucks; In a Morton Building a Brush Engine is housed
- First Due Area: 15.42 mi²; Also covers out-of-county area in Frederick County of 15 mi²
- Number of Unique Risk Management Zones (box areas): 9
- Predominant Population Density Zone: Rural

*Only available when volunteer personnel are in the station



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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 9 (Rural Density Zone) Fiscal Year Response Area: Number of DISPATCHED ¹ Incidents Aggregated by Accreditation Program							
Accreditation Program	Risk	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS1	MR	45	44	44	58	51	
ALS2	HR	6	3	11	9	5	
BLS	LR	89	77	83	91	111	
Fire Full Assignment Hydranted	HR	1	2	0	0	3	
FFA-Highrise (FFA-SRHR)	SR	N/A	N/A	N/A	0	0	
FFA-Non-hydranted Area	SR	1	2	0	0	3	
Adaptive-1F	LR	20	11	10	9	10	
Adaptive-1N	LR	9	18	17	23	22	
Adaptive-2-3	MR	2	1	0	5	3	
Hazmat Low Risk ²	LR	0	0	0	0	0	
Hazmat Moderate Risk	MR	1	0	1	0	0	
Hazmat High Risk	HR	0	0	0	0	0	
Hazmat Special Risk	SR	0	0	0	0	0	
Technical Rescue	SR	0	0	0	0	0	
Water/Ice Rescue Moderate	MR	0	0	0	0	0	
Water/Ice Rescue High	HR	0	0	0	0	0	
Water/Ice Rescue Special	SR	0	0	0	0	0	
ARFF High Risk	HR	0	0	0	0	0	
ARFF Special Risk	SR	0	0	0	0	0	
Bomb Squad Moderate Risk	MR						
Bomb Squad High Risk	HR						
Bomb Squad Special Risk	SR						
Bomb Squad TOTAL		1	0	0	0	0	
Non-Accreditation Counts							
Service Call ³		12	7	4	4	3	
Total Incident Counts							
		187	165	170	199	211	0
Total Aggregated by Overarching Program Area		FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS		51	47	55	67	56	0
BLS		89	77	83	91	111	0
Fire Full Assignment		2	4	0	0	6	0
Adaptive ⁴		31	30	27	37	35	0
Hazmat ⁵		1	0	1	0	0	0
Technical Rescue		0	0	0	0	0	0
Water/Ice Rescue		0	0	0	0	0	0
Aircraft Rescue Firefighting		0	0	0	0	0	0
Bomb Squad Responses		1	0	0	0	0	0

¹ Dispatched incident totals offer a way of analyzing overall system demand by Station Response Area

² Hazmat low risk (LR) incidents are counted but not measured

³ Service calls also include BLS routine and occasional ALS emergency interfacility transports

Note: Adaptive responses now include inside and outside natural gas/LPG leaks, except high pressure 2" or > which are Hazmat

Note: Hazmat incidents counts no longer include inside and outside gas/LPG leaks except high pressure 2" or >

Note: During FY16 "light smoke conditions" in buildings other than high-rise/high-risk became an Adaptive 2-3 instead of a FFA response

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 10

Battalion 2

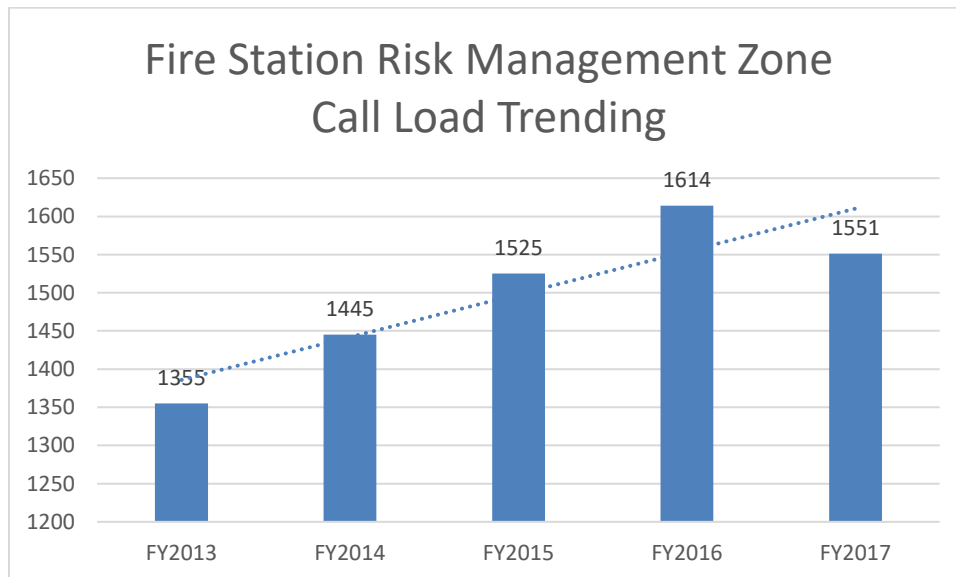
Cabin John Station

8001 River Road, Bethesda



Description

- Ownership: County
- Apparatus Housed: Paramedic Engine, Truck, Ambulance, 2 Boats
- Specialty Team: Swift Water Rescue
- First Due Area: 9.5 mi²
- Number of Unique Risk Management Zones (box areas): 33
- Predominant Population Density Zone: Suburban



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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 10 (Suburban Density Zone) Fiscal Year Response Area: Number of DISPATCHED ¹ Incidents Aggregated by Accreditation Program							
Accreditation Program	Risk	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS1	MR	283	327	357	364	322	
ALS2	HR	56	55	45	69	57	
BLS	LR	612	623	686	749	758	
Fire Full Assignment Hydranted	HR	16	7	15	14	8	
FFA-Highrise (FFA-SRHR)	SR	N/A	N/A	N/A	0	0	
FFA-Non-hydranted Area	SR	0	0	0	0	0	
Adaptive-1F	LR	43	34	31	39	51	
Adaptive-1N	LR	211	228	240	251	208	
Adaptive-2-3	MR	30	31	21	21	36	
Hazmat Low Risk ²	LR	0	1	0	0	0	
Hazmat Moderate Risk	MR	1	1	0	3	3	
Hazmat High Risk	HR	0	1	2	0	0	
Hazmat Special Risk	SR	3	0	2	2	0	
Technical Rescue	SR	1	1	0	1	0	
Water/Ice Rescue Moderate	MR	1	3	3	1	0	
Water/Ice Rescue High	HR	0	0	0	0	0	
Water/Ice Rescue Special	SR	1	2	1	2	3	
ARFF High Risk	HR	0	0	0	0	0	
ARFF Special Risk	SR	0	0	0	0	0	
Bomb Squad Moderate Risk	MR						
Bomb Squad High Risk	HR						
Bomb Squad Special Risk	SR						
Bomb Squad TOTAL		4	6	6	3	2	
Non-Accreditation Counts							
Service Call ³		93	125	116	95	103	
Total Incident Counts							
		1355	1445	1525	1614	1551	0
Total Aggregated by Overarching Program Area		FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS		339	382	402	433	379	0
BLS		612	623	686	749	758	0
Fire Full Assignment		16	7	15	14	8	0
Adaptive ⁴		284	293	292	311	295	0
Hazmat ⁵		4	3	4	5	3	0
Technical Rescue		1	1	3	1	0	0
Water/Ice Rescue		2	5	4	3	3	0
Aircraft Rescue Firefighting		0	0	0	0	0	0
Bomb Squad Responses		4	6	6	3	2	0

¹ Dispatched incident totals offer a way of analyzing overall system demand by Station Response Area

² Hazmat low risk (LR) incidents are counted but not measured

³ Service calls also include BLS routine and occasional ALS emergency interfacility transports

Note: Adaptive responses now include inside and outside natural gas/LPG leaks, except high pressure 2" or > which are Hazmat

Note: Hazmat incidents counts no longer include inside and outside gas/LPG leaks except high pressure 2" or >

Note: During FY16 "light smoke conditions" in buildings other than high-rise/high-risk became an Adaptive 2-3 instead of a FFA response

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 11

Battalion 2

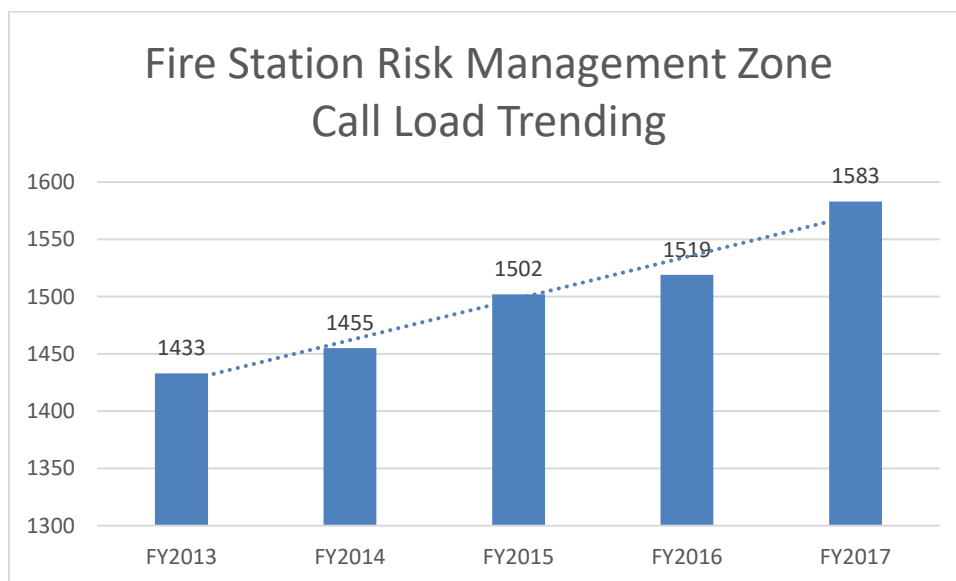
Glen Echo Station

5920 Massachusetts Avenue, Bethesda



Description

- Ownership: Volunteer
- Apparatus Housed: Paramedic Engine, Ambulance, ATV
- First Due Area: 5.17 mi²
- Number of Unique Risk Management Zones (box areas): 8
- Predominant Population Density Zone: Metropolitan



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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 11 (Metropolitan Density Zone) Fiscal Year Response Area: Number of DISPATCHED ¹ Incidents Aggregated by Accreditation Program							
Accreditation Program	Risk	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS1	MR	283	283	296	339	352	
ALS2	HR	77	66	87	67	47	
BLS	LR	512	544	494	533	623	
Fire Full Assignment Hydranted	HR	9	18	14	6	10	
FFA-Highrise (FFA-SRHR)	SR	N/A	N/A	N/A	2	0	
FFA-Non-hydranted Area	SR	0	0	0	0	0	
Adaptive-1F	LR	20	24	18	21	25	
Adaptive-1N	LR	337	290	339	313	291	
Adaptive-2-3	MR	21	32	21	44	38	
Hazmat Low Risk ²	LR	0	3	0	0	0	
Hazmat Moderate Risk	MR	2	0	1	4	3	
Hazmat High Risk	HR	1	1	1	1	1	
Hazmat Special Risk	SR	0	0	1	1	3	
Technical Rescue	SR	0	0	0	1	1	
Water/Ice Rescue Moderate	MR	0	1	2	4	1	
Water/Ice Rescue High	HR	0	0	0	0	0	
Water/Ice Rescue Special	SR	0	7	0	1	3	
ARFF High Risk	HR	0	0	0	0	0	
ARFF Special Risk	SR	0	0	0	0	0	
Bomb Squad Moderate Risk	MR						
Bomb Squad High Risk	HR						
Bomb Squad Special Risk	SR						
Bomb Squad TOTAL		8	3	7	8	9	
Non-Accreditation Counts							
Service Call ³		163	183	221	174	176	
Total Incident Counts							
		1433	1455	1502	1519	1583	0
Total Aggregated by Overarching Program Area		FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS		360	349	383	406	399	0
BLS		512	544	494	533	623	0
Fire Full Assignment		9	18	14	8	10	0
Adaptive ⁴		378	346	378	378	354	0
Hazmat ⁵		3	4	3	6	7	0
Technical Rescue		0	0	2	4	1	0
Water/Ice Rescue		0	8	2	5	4	0
Aircraft Rescue Firefighting		0	0	0	0	0	0
Bomb Squad Responses		8	3	7	8	9	0

¹ Dispatched incident totals offer a way of analyzing overall system demand by Station Response Area

² Hazmat low risk (LR) incidents are counted but not measured

³ Service calls also include BLS routine and occasional ALS emergency interfacility transports

Note: Adaptive responses now include inside and outside natural gas/LPG leaks, except high pressure 2" or > which are Hazmat

Note: Hazmat incidents counts no longer include inside and outside gas/LPG leaks except high pressure 2" or >

Note: During FY16 "light smoke conditions" in buildings other than high-rise/high-risk became an Adaptive 2-3 instead of a FFA response

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 12

Battalion 1

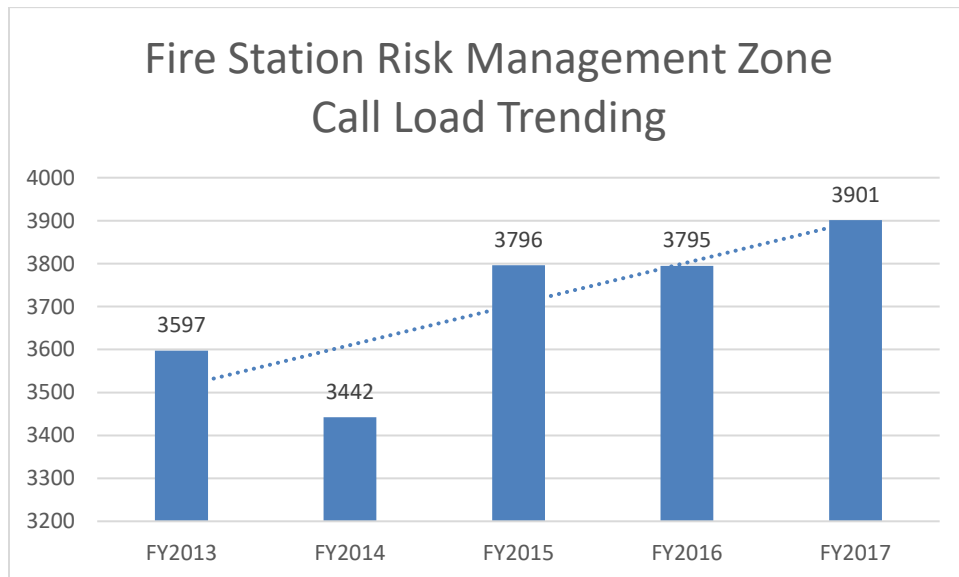
Hillandale Station

10617 New Hampshire Avenue, Silver Spring



Description

- Ownership: Volunteer
- Apparatus Housed: Paramedic Engine, Ambulance, Medic, Battalion Chief
- First Due Area: 6.39 mi²
- Number of Unique Risk Management Zones (box areas): 16
- Predominant Population Density Zone: Metropolitan



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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 12 (Metropolitan Density Zone) Fiscal Year Response Area: Number of DISPATCHED ¹ Incidents Aggregated by Accreditation Program							
Accreditation Program	Risk	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS1	MR	1016	989	1147	1107	1154	
ALS2	HR	227	174	201	228	136	
BLS	LR	1682	1626	1709	1736	1825	
Fire Full Assignment Hydranted	HR	47	50	41	36	26	
FFA-Highrise (FFA-SRHR)	SR	N/A	N/A	N/A	9	4	
FFA-Non-hydranted Area	SR	0	0	0	0	0	
Adaptive-1F	LR	97	64	46	71	70	
Adaptive-1N	LR	237	246	260	316	346	
Adaptive-2-3	MR	65	56	86	85	112	
Hazmat Low Risk ²	LR	1	2	0	0	0	
Hazmat Moderate Risk	MR	1	0	3	4	6	
Hazmat High Risk	HR	2	5	2	1	0	
Hazmat Special Risk	SR	0	5	1	0	0	
Technical Rescue	SR	0	2	1	0	1	
Water/Ice Rescue Moderate	MR	2	0	0	0	0	
Water/Ice Rescue High	HR	0	0	0	0	0	
Water/Ice Rescue Special	SR	0	0	0	0	0	
ARFF High Risk	HR	0	0	0	0	0	
ARFF Special Risk	SR	0	0	0	0	0	
Bomb Squad Moderate Risk	MR						
Bomb Squad High Risk	HR						
Bomb Squad Special Risk	SR						
Bomb Squad TOTAL		7	12	12	11	12	
Non-Accreditation Counts							
Service Call ³		213	211	287	191	209	
Total Incident Counts							
		3597	3442	3796	3795	3901	0
Total Aggregated by Overarching Program Area		FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS		1243	1163	1348	1335	1290	0
BLS		1682	1626	1709	1736	1825	0
Fire Full Assignment		47	50	41	45	30	0
Adaptive ⁴		399	366	392	472	528	0
Hazmat ⁵		4	12	6	5	6	0
Technical Rescue		0	2	0	0	0	0
Water/Ice Rescue		2	0	0	0	0	0
Aircraft Rescue Firefighting		0	0	0	0	0	0
Bomb Squad Responses		7	12	12	11	12	0

¹ Dispatched incident totals offer a way of analyzing overall system demand by Station Response Area

² Hazmat low risk (LR) incidents are counted but not measured

³ Service calls also include BLS routine and occasional ALS emergency interfacility transports

Note: Adaptive responses now include inside and outside natural gas/LPG leaks, except high pressure 2" or > which are Hazmat

Note: Hazmat incidents counts no longer include inside and outside gas/LPG leaks except high pressure 2" or >

Note: During FY16 "light smoke conditions" in buildings other than high-rise/high-risk became an Adaptive 2-3 instead of a FFA response

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 13

Battalion 5

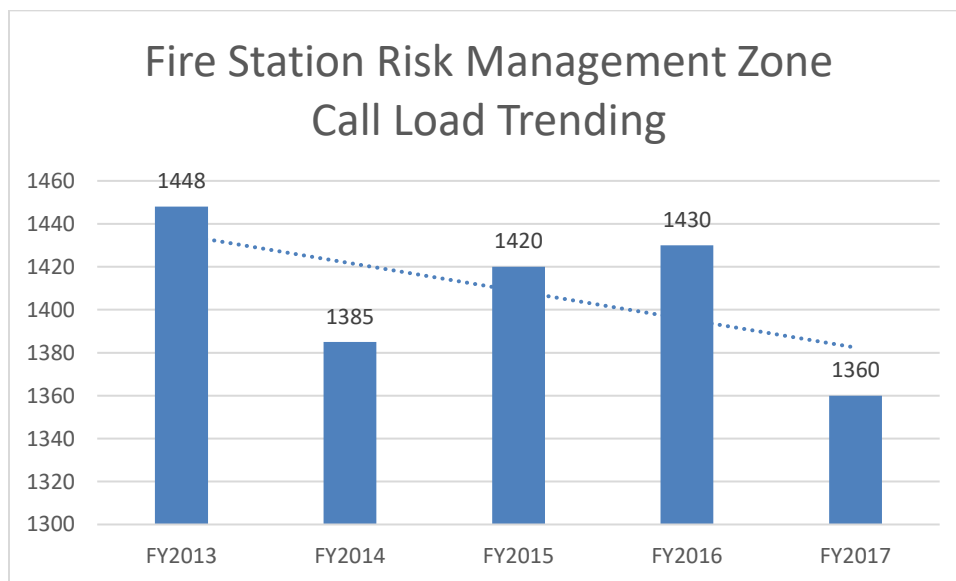
Damascus Station

26334 Ridge Road, Damascus



Description

- Ownership: Volunteer
- Apparatus Housed: Paramedic Engine, Medic, Tanker, Brush Truck
A Brush Engine is available for certain call types
- First Due Area: 33.31 mi²
- Number of Unique Risk Management Zones (box areas): 33
- Predominant Population Density Zone: Rural



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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 13 (Rural Density Zone) Fiscal Year Response Area: Number of DISPATCHED ¹ Incidents Aggregated by Accreditation Program							
Accreditation Program	Risk	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS1	MR	496	454	484	486	489	
ALS2	HR	82	85	82	87	75	
BLS	LR	595	592	562	557	499	
Fire Full Assignment Hydranted	HR	15	17	23	11	14	
FFA-Highrise (FFA-SRHR)	SR	N/A	N/A	N/A	0	0	
FFA-Non-hydranted Area	SR	3	4	6	3	5	
Adaptive-1F	LR	40	30	32	36	46	
Adaptive-1N	LR	98	93	94	132	127	
Adaptive-2-3	MR	13	13	25	21	30	
Hazmat Low Risk ²	LR	0	0	0	1	0	
Hazmat Moderate Risk	MR	0	1	0	0	0	
Hazmat High Risk	HR	0	1	2	0	0	
Hazmat Special Risk	SR	0	2	0	2	0	
Technical Rescue	SR	0	0	0	0	0	
Water/Ice Rescue Moderate	MR	0	0	1	0	2	
Water/Ice Rescue High	HR	0	0	0	0	0	
Water/Ice Rescue Special	SR	0	0	0	0	0	
ARFF High Risk	HR	0	0	0	0	0	
ARFF Special Risk	SR	0	0	0	0	0	
Bomb Squad Moderate Risk	MR						
Bomb Squad High Risk	HR						
Bomb Squad Special Risk	SR						
Bomb Squad TOTAL		3	1	3	3	2	
Non-Accreditation Counts							
Service Call ³		103	92	106	91	71	
Total Incident Counts							
		1448	1385	1420	1430	1360	0
Total Aggregated by Overarching Program Area		FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS		578	539	566	573	564	0
BLS		595	592	562	557	499	0
Fire Full Assignment		18	21	29	14	19	0
Adaptive ⁴		151	136	151	189	203	0
Hazmat ⁵		0	4	2	3	0	0
Technical Rescue		0	0	1	0	2	0
Water/Ice Rescue		0	0	1	0	2	0
Aircraft Rescue Firefighting		0	0	0	0	0	0
Bomb Squad Responses		3	1	3	3	2	0

¹ Dispatched incident totals offer a way of analyzing overall system demand by Station Response Area

² Hazmat low risk (LR) incidents are counted but not measured

³ Service calls also include BLS routine and occasional ALS emergency interfacility transports

Note: Adaptive responses now include inside and outside natural gas/LPG leaks, except high pressure 2" or > which are Hazmat

Note: Hazmat incidents counts no longer include inside and outside gas/LPG leaks except high pressure 2" or >

Note: During FY16 "light smoke conditions" in buildings other than high-rise/high-risk became an Adaptive 2-3 instead of a FFA response

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 14

Battalion 5

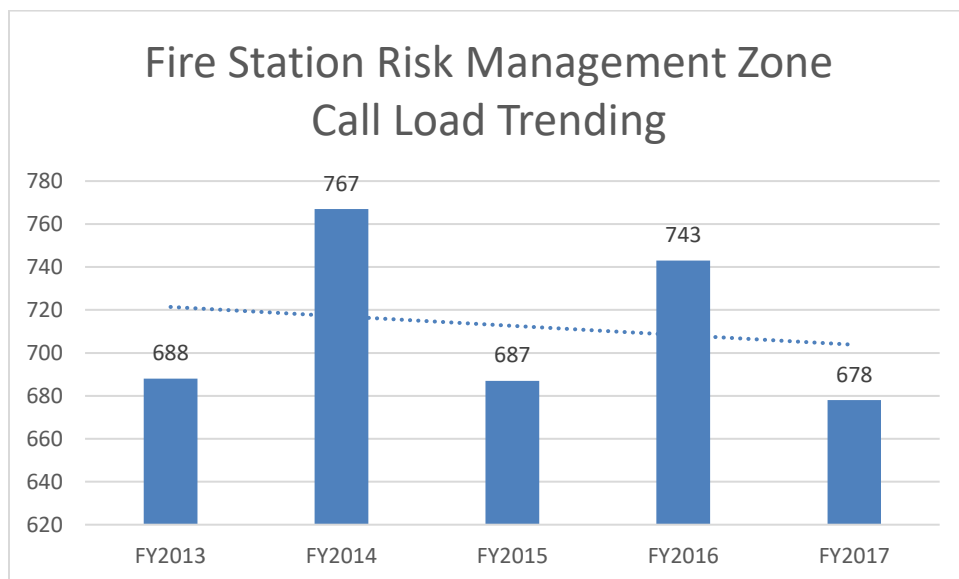
Upper Montgomery Station

19801 Beallsville Road, Beallsville



Description

- Ownership: Volunteer
- Apparatus Housed: Paramedic Engine, Medic, Tanker, Brush Truck, Boat
A Rescue Engine and Brush Engine, are available for certain call types
- First Due Area: 86.68 mi²
- Number of Unique Risk Management Zones (box areas): 21
- Predominant Population Density Zone: Rural



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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 14 (Rural Density Zone) Fiscal Year Response Area: Number of DISPATCHED ¹ Incidents Aggregated by Accreditation Program							
Accreditation Program	Risk	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS1	MR	219	243	238	233	247	
ALS2	HR	46	43	38	44	26	
BLS	LR	252	291	250	296	235	
Fire Full Assignment Hydranted	HR	6	14	14	4	8	
FFA-Highrise (FFA-SRHR)	SR	N/A	N/A	N/A	0	0	
FFA-Non-hydranted Area	SR	5	7	7	1	5	
Adaptive-1F	LR	30	30	23	33	28	
Adaptive-1N	LR	80	94	79	81	73	
Adaptive-2-3	MR	14	8	9	15	16	
Hazmat Low Risk ²	LR	0	0	0	0	0	
Hazmat Moderate Risk	MR	0	0	1	0	0	
Hazmat High Risk	HR	2	0	2	1	0	
Hazmat Special Risk	SR	1	1	1	0	1	
Technical Rescue	SR	0	0	1	0	1	
Water/Ice Rescue Moderate	MR	1	1	0	0	2	
Water/Ice Rescue High	HR	0	1	1	4	2	
Water/Ice Rescue Special	SR	0	0	0	1	0	
ARFF High Risk	HR	0	0	0	0	0	
ARFF Special Risk	SR	0	0	0	0	0	
Bomb Squad Moderate Risk	MR						
Bomb Squad High Risk	HR						
Bomb Squad Special Risk	SR						
Bomb Squad TOTAL		2	1	2	2	3	
Non-Accreditation Counts							
Service Call ³		30	33	21	28	31	
Total Incident Counts							
		688	767	687	743	678	0
Total Aggregated by Overarching Program Area		FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS		265	286	276	277	273	0
BLS		252	291	250	296	235	0
Fire Full Assignment		11	21	21	5	13	0
Adaptive ⁴		124	132	111	129	117	0
Hazmat ⁵		3	1	4	1	1	0
Technical Rescue		0	0	0	0	2	0
Water/Ice Rescue		1	2	1	5	4	0
Aircraft Rescue Firefighting		0	0	0	0	0	0
Bomb Squad Responses		2	1	2	2	3	0

¹ Dispatched incident totals offer a way of analyzing overall system demand by Station Response Area

² Hazmat low risk (LR) incidents are counted but not measured

³ Service calls also include BLS routine and occasional ALS emergency interfacility transports

Note: Adaptive responses now include inside and outside natural gas/LPG leaks, except high pressure 2" or > which are Hazmat

Note: Hazmat incidents counts no longer include inside and outside gas/LPG leaks except high pressure 2" or >

Note: During FY16 "light smoke conditions" in buildings other than high-rise/high-risk became an Adaptive 2-3 instead of a FFA response

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 15

Battalion 1

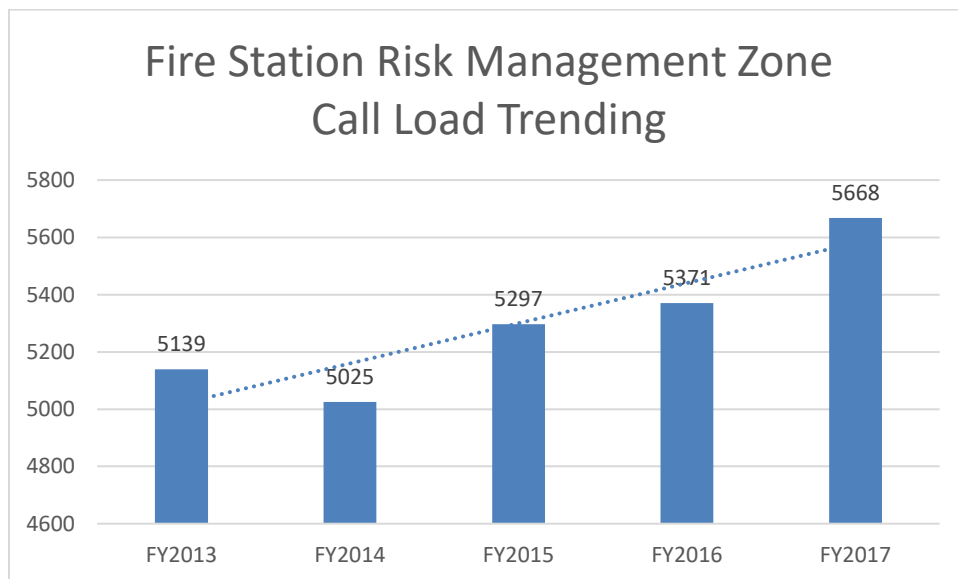
Burtonsville Station

13900 Old Columbia Pike, Burtonsville



Description

- Ownership: County
- Apparatus Housed: Paramedic Engine, Truck, Rescue Squad, Medic Unit, Ambulance, Brush Truck
- First Due Area: 18.80 mi²
- Number of Unique Risk Management Zones (box areas): 30
- Predominant Population Density Zone: Urban



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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 15 (Urban Density Zone) Fiscal Year Response Area: Number of DISPATCHED ¹ Incidents Aggregated by Accreditation Program							
Accreditation Program	Risk	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS1	MR	1635	1507	1779	1792	1986	
ALS2	HR	296	235	262	300	298	
BLS	LR	2304	2363	2331	2394	2463	
Fire Full Assignment Hydranted	HR	48	61	68	36	35	
FFA-Highrise (FFA-SRHR)	SR	N/A	N/A	N/A	5	1	
FFA-Non-hydranted Area	SR	1	0	0	1	0	
Adaptive-1F	LR	105	75	59	74	81	
Adaptive-1N	LR	402	384	365	383	424	
Adaptive-2-3	MR	90	93	91	94	125	
Hazmat Low Risk ²	LR	0	0	0	1	1	
Hazmat Moderate Risk	MR	1	1	1	5	4	
Hazmat High Risk	HR	6	2	5	0	1	
Hazmat Special Risk	SR	2	2	2	2	0	
Technical Rescue	SR	1	0	0	1	1	
Water/Ice Rescue Moderate	MR	0	0	0	0	0	
Water/Ice Rescue High	HR	0	0	0	0	0	
Water/Ice Rescue Special	SR	0	0	0	0	0	
ARFF High Risk	HR	0	0	0	0	0	
ARFF Special Risk	SR	0	0	0	0	0	
Bomb Squad Moderate Risk	MR						
Bomb Squad High Risk	HR						
Bomb Squad Special Risk	SR						
Bomb Squad TOTAL		15	10	11	28	11	
Non-Accreditation Counts							
Service Call ³		233	292	323	255	237	
Total Incident Counts							
		5139	5025	5297	5371	5668	0
Total Aggregated by Overarching Program Area		FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS		1931	1742	2041	2092	2284	0
BLS		2304	2363	2331	2394	2463	0
Fire Full Assignment		49	61	68	42	36	0
Adaptive ⁴		597	552	515	551	630	0
Hazmat ⁵		9	5	8	8	6	0
Technical Rescue		1	0	0	0	0	0
Water/Ice Rescue		0	0	0	0	0	0
Aircraft Rescue Firefighting		0	0	0	0	0	0
Bomb Squad Responses		15	10	11	28	11	0

¹ Dispatched incident totals offer a way of analyzing overall system demand by Station Response Area

² Hazmat low risk (LR) incidents are counted but not measured

³ Service calls also include BLS routine and occasional ALS emergency interfacility transports

Note: Adaptive responses now include inside and outside natural gas/LPG leaks, except high pressure 2" or > which are Hazmat

Note: Hazmat incidents counts no longer include inside and outside gas/LPG leaks except high pressure 2" or >

Note: During FY16 "light smoke conditions" in buildings other than high-rise/high-risk became an Adaptive 2-3 instead of a FFA response

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 16

Battalion 1

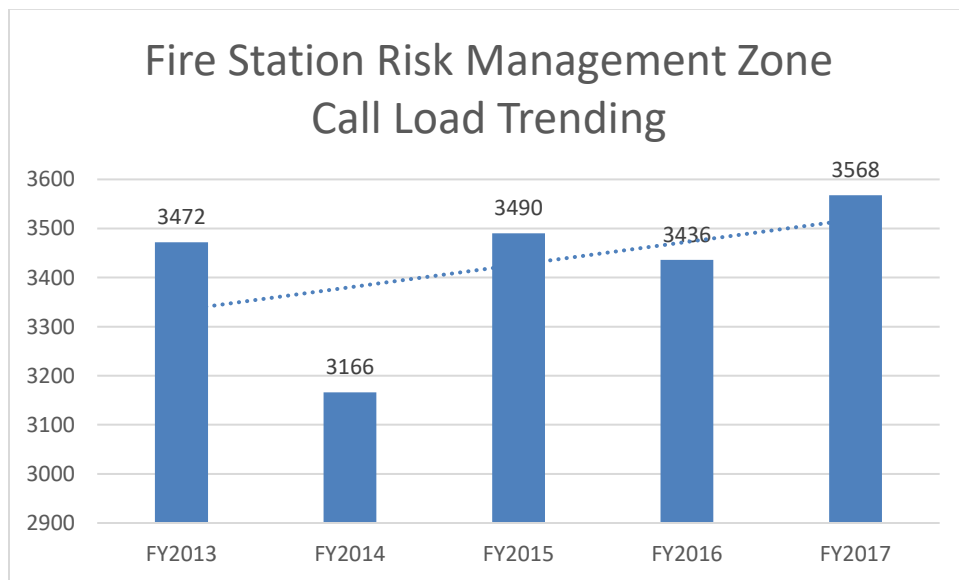
Silver Spring Station

111 University Boulevard East, Silver Spring



Description

- Ownership: Volunteer
- Apparatus Housed: Paramedic Engine, Truck, Ambulance, Air Unit
- Number of Unique Risk Management Zones (box areas): 18
- Predominant Population Density Zone: Metropolitan



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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 16 (Metropolitan Density Zone) Fiscal Year Response Area: Number of DISPATCHED ¹ Incidents Aggregated by Accreditation Program							
Accreditation Program	Risk	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS1	MR	880	822	960	870	1004	
ALS2	HR	178	152	185	174	142	
BLS	LR	1783	1574	1615	1778	1687	
Fire Full Assignment Hydranted	HR	42	26	37	14	11	
FFA-Highrise (FFA-SRHR)	SR	N/A	N/A	N/A	8	6	
FFA-Non-hydranted Area	SR	0	0	0	0	0	
Adaptive-1F	LR	105	88	70	66	61	
Adaptive-1N	LR	243	212	288	287	336	
Adaptive-2-3	MR	46	57	55	52	109	
Hazmat Low Risk ²	LR	1	1	1	0	0	
Hazmat Moderate Risk	MR	0	0	2	2	3	
Hazmat High Risk	HR	1	1	2	1	0	
Hazmat Special Risk	SR	0	2	3	0	0	
Technical Rescue	SR	0	0	1	0	0	
Water/Ice Rescue Moderate	MR	1	0	0	0	0	
Water/Ice Rescue High	HR	0	0	0	0	0	
Water/Ice Rescue Special	SR	0	0	0	0	0	
ARFF High Risk	HR	0	0	0	0	0	
ARFF Special Risk	SR	0	0	0	0	0	
Bomb Squad Moderate Risk	MR						
Bomb Squad High Risk	HR						
Bomb Squad Special Risk	SR						
Bomb Squad TOTAL		8	9	8	3	10	
Non-Accreditation Counts							
Service Call ³		184	222	263	181	199	
Total Incident Counts							
		3472	3166	3490	3436	3568	0
Total Aggregated by Overarching Program Area		FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS		1058	974	1145	1044	1146	0
BLS		1783	1574	1615	1778	1687	0
Fire Full Assignment		42	26	37	22	17	0
Adaptive ⁴		394	357	413	405	506	0
Hazmat ⁵		2	4	8	3	3	0
Technical Rescue		0	0	0	0	0	0
Water/Ice Rescue		1	0	0	0	0	0
Aircraft Rescue Firefighting		0	0	0	0	0	0
Bomb Squad Responses		8	9	8	3	10	0

¹ Dispatched incident totals offer a way of analyzing overall system demand by Station Response Area

² Hazmat low risk (LR) incidents are counted but not measured

³ Service calls also include BLS routine and occasional ALS emergency interfacility transports

Note: Adaptive responses now include inside and outside natural gas/LPG leaks, except high pressure 2" or > which are Hazmat

Note: Hazmat incidents counts no longer include inside and outside gas/LPG leaks except high pressure 2" or >

Note: During FY16 "light smoke conditions" in buildings other than high-rise/high-risk became an Adaptive 2-3 instead of a FFA response

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 17

Battalion 5

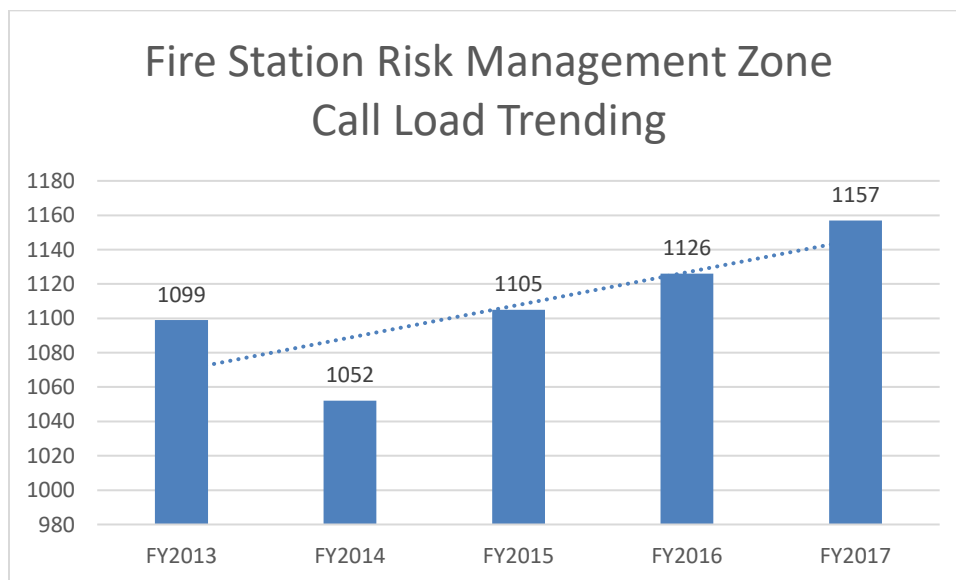
Laytonsville Station

21400 Laytonsville Road, Laytonsville



Description

- Ownership: Volunteer
- Apparatus Housed: Paramedic Engine, Squad, Ambulance, Tanker, Brush Truck A
An Engine Tanker and Brush Engine are available for certain call types
- First Due Area: 41.43 mi²
- Number of Unique Risk Management Zones (box areas): 27
- Predominant Population Density Zone: Rural



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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 17 (Rural Density Zone) Fiscal Year Response Area: Number of DISPATCHED ¹ Incidents Aggregated by Accreditation Program							
Accreditation Program	Risk	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS1	MR	332	301	340	364	379	
ALS2	HR	64	77	62	70	66	
BLS	LR	399	395	450	444	431	
Fire Full Assignment Hydranted	HR	17	14	17	6	10	
FFA-Highrise (FFA-SRHR)	SR	N/A	N/A	N/A	0	0	
FFA-Non-hydranted Area	SR	9	10	7	3	6	
Adaptive-1F	LR	40	20	31	41	33	
Adaptive-1N	LR	156	123	114	112	128	
Adaptive-2-3	MR	15	16	14	25	22	
Hazmat Low Risk ²	LR	0	1	0	0	1	
Hazmat Moderate Risk	MR	0	0	2	2	1	
Hazmat High Risk	HR	1	2	0	0	1	
Hazmat Special Risk	SR	0	0	0	0	0	
Technical Rescue	SR	0	0	0	0	0	
Water/Ice Rescue Moderate	MR	1	2	1	0	5	
Water/Ice Rescue High	HR	0	0	0	0	0	
Water/Ice Rescue Special	SR	0	0	0	0	0	
ARFF High Risk	HR	2	0	0	0	0	
ARFF Special Risk	SR	0	0	0	0	1	
Bomb Squad Moderate Risk	MR						
Bomb Squad High Risk	HR						
Bomb Squad Special Risk	SR						
Bomb Squad TOTAL		3	6	5	6	0	
Non-Accreditation Counts							
Service Call ³		60	85	62	53	73	
Total Incident Counts							
		1099	1052	1105	1126	1157	0
Total Aggregated by Overarching Program Area		FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS		396	378	402	434	445	0
BLS		399	395	450	444	431	0
Fire Full Assignment		26	24	24	9	16	0
Adaptive ⁴		211	159	159	178	183	0
Hazmat ⁵		1	3	2	2	3	0
Technical Rescue		0	0	1	0	5	0
Water/Ice Rescue		1	2	1	0	5	0
Aircraft Rescue Firefighting		2	0	0	0	1	0
Bomb Squad Responses		3	6	5	6	0	0

¹ Dispatched incident totals offer a way of analyzing overall system demand by Station Response Area

² Hazmat low risk (LR) incidents are counted but not measured

³ Service calls also include BLS routine and occasional ALS emergency interfacility transports

Note: Adaptive responses now include inside and outside natural gas/LPG leaks, except high pressure 2" or > which are Hazmat

Note: Hazmat incidents counts no longer include inside and outside gas/LPG leaks except high pressure 2" or >

Note: During FY16 "light smoke conditions" in buildings other than high-rise/high-risk became an Adaptive 2-3 instead of a FFA response

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 18

Battalion 4

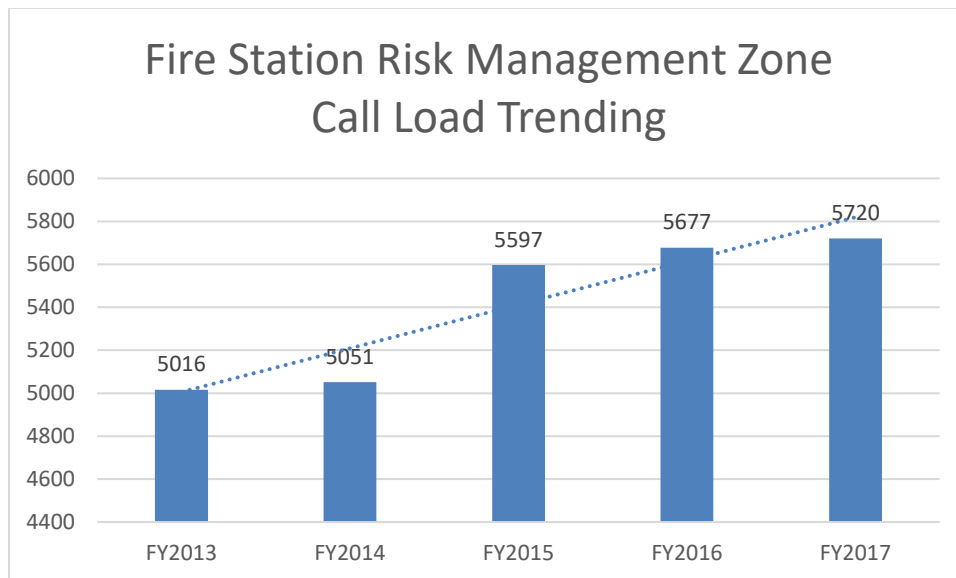
Kensington (Glenmont) Station

12210 Georgia Avenue, Wheaton



Description

- Ownership: County
- Apparatus Housed: Paramedic Engine, Aerial Tower, EMS Supervisor, Mobile Command Unit
- First Due Area: 8.73 mi²
- Number of Unique Risk Management Zones (box areas): 28
- Predominant Population Density Zone: Metropolitan



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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 18 (Metropolitan Density Zone) Fiscal Year Response Area: Number of DISPATCHED ¹ Incidents Aggregated by Accreditation Program							
Accreditation Program	Risk	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS1	MR	1376	1317	1618	1555	1767	
ALS2	HR	301	273	306	321	259	
BLS	LR	2282	2286	2446	2577	2523	
Fire Full Assignment Hydranted	HR	48	43	43	42	25	
FFA-Highrise (FFA-SRHR)	SR	N/A	N/A	N/A	0	1	
FFA-Non-hydranted Area	SR	0	0	0	0	0	
Adaptive-1F	LR	69	73	73	85	86	
Adaptive-1N	LR	449	476	505	527	511	
Adaptive-2-3	MR	78	91	104	111	115	
Hazmat Low Risk ²	LR	0	0	1	1	1	
Hazmat Moderate Risk	MR	2	1	2	4	6	
Hazmat High Risk	HR	7	5	6	1	0	
Hazmat Special Risk	SR	1	0	1	2	3	
Technical Rescue	SR	1	0	1	2	0	
Water/Ice Rescue Moderate	MR	0	0	1	0	0	
Water/Ice Rescue High	HR	0	0	0	0	0	
Water/Ice Rescue Special	SR	0	0	0	0	0	
ARFF High Risk	HR	0	0	0	0	0	
ARFF Special Risk	SR	0	0	0	0	0	
Bomb Squad Moderate Risk	MR						
Bomb Squad High Risk	HR						
Bomb Squad Special Risk	SR						
Bomb Squad TOTAL		23	24	26	38	33	
Non-Accreditation Counts							
Service Call ³		379	462	464	411	390	
Total Incident Counts							
		5016	5051	5597	5677	5720	0
Total Aggregated by Overarching Program Area		FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS		1677	1590	1924	1876	2026	0
BLS		2282	2286	2446	2577	2523	0
Fire Full Assignment		48	43	43	42	26	0
Adaptive*		596	640	682	723	712	0
Hazmat*		10	6	10	8	10	0
Technical Rescue		1	0	1	0	0	0
Water/Ice Rescue		0	0	1	0	0	0
Aircraft Rescue Firefighting		0	0	0	0	0	0
Bomb Squad Responses		23	24	26	38	33	0

¹ Dispatched incident totals offer a way of analyzing overall system demand by Station Response Area

² Hazmat low risk (LR) incidents are counted but not measured

³ Service calls also include BLS routine and occasional ALS emergency interfacility transports

Note: Adaptive responses now include inside and outside natural gas/LPG leaks, except high pressure 2" or > which are Hazmat

Note: Hazmat incidents counts no longer include inside and outside gas/LPG leaks except high pressure 2" or >

Note: During FY16 "light smoke conditions" in buildings other than high-rise/high-risk became an Adaptive 2-3 instead of a FFA response

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 19

Battalion 1

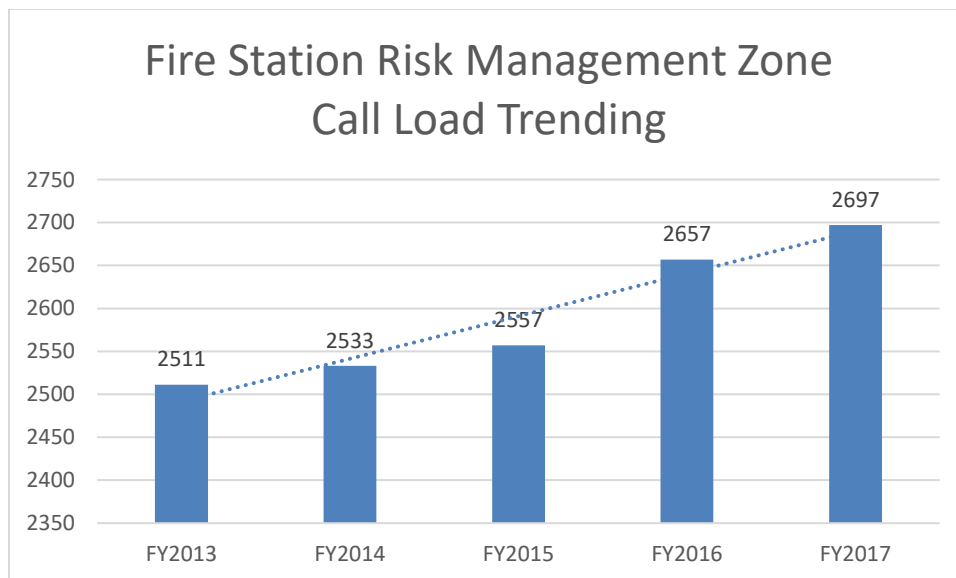
Silver Spring Station

1945 Seminary Road, Silver Spring



Description

- Ownership: County
- Apparatus Housed: Paramedic Engine, Truck
- First Due Area: 3.8 mi²
- Number of Unique Risk Management Zones (box areas): 25
- Predominant Population Density Zone: Metropolitan



MCFRS

COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 19 (Metropolitan Density Zone) Fiscal Year Response Area: Number of DISPATCHED ¹ Incidents Aggregated by Accreditation Program							
Accreditation Program	Risk	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS1	MR	669	675	728	715	778	
ALS2	HR	129	152	136	135	84	
BLS	LR	1131	1172	1105	1230	1221	
Fire Full Assignment Hydranted	HR	26	21	27	16	13	
FFA-Highrise (FFA-SRHR)	SR	N/A	N/A	N/A	2	1	
FFA-Non-hydranted Area	SR	0	0	0	0	0	
Adaptive-1F	LR	49	40	23	43	46	
Adaptive-1N	LR	236	244	266	259	273	
Adaptive-2-3	MR	51	32	44	58	70	
Hazmat Low Risk ²	LR	1	0	1	0	0	
Hazmat Moderate Risk	MR	1	0	0	8	2	
Hazmat High Risk	HR	2	2	3	0	1	
Hazmat Special Risk	SR	0	0	4	1	1	
Technical Rescue	SR	0	0	0	0	0	
Water/Ice Rescue Moderate	MR	0	2	0	2	0	
Water/Ice Rescue High	HR	0	0	0	0	0	
Water/Ice Rescue Special	SR	0	0	0	0	0	
ARFF High Risk	HR	0	0	0	0	0	
ARFF Special Risk	SR	0	0	0	0	0	
Bomb Squad Moderate Risk	MR						
Bomb Squad High Risk	HR						
Bomb Squad Special Risk	SR						
Bomb Squad TOTAL		9	13	13	7	15	
Non-Accreditation Counts							
Service Call ³		207	180	207	181	192	
Total Incident Counts							
Total Aggregated by Overarching Program Area		FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS		798	827	864	850	862	0
BLS		1131	1172	1105	1230	1221	0
Fire Full Assignment		26	21	27	18	14	0
Adaptive ⁴		336	316	333	360	389	0
Hazmat ⁵		4	2	8	9	4	0
Technical Rescue		0	0	0	2	0	0
Water/Ice Rescue		0	2	0	2	0	0
Aircraft Rescue Firefighting		0	0	0	0	0	0
Bomb Squad Responses		9	13	13	7	15	0

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³ Service calls also include BLS routine and occasional ALS emergency interfacility transports

Note: Adaptive responses now include inside and outside natural gas/LPG leaks, except high pressure 2" or > which are Hazmat

Note: Hazmat incidents counts no longer include inside and outside gas/LPG leaks except high pressure 2" or >

Note: During FY16 "light smoke conditions" in buildings other than high-rise/high-risk became an Adaptive 2-3 instead of a FFA response

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 20

Battalion 2

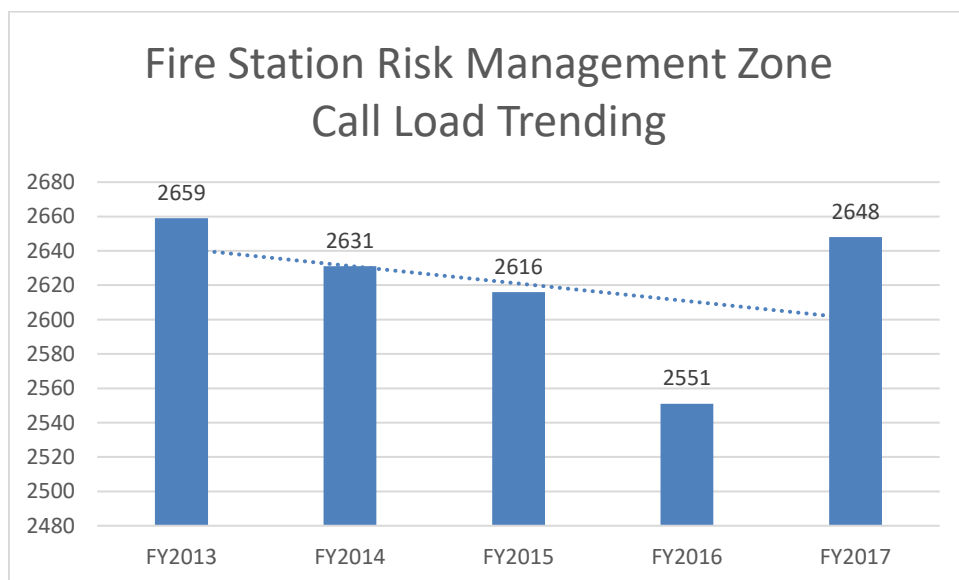
Bethesda Station

9041 Old Georgetown Road, Bethesda



Description

- Ownership: Volunteer
- Apparatus Housed: Engine, Battalion Chief
- Specialty Team: Hazmat
- First Due Area: 4.1 mi²
- Number of Unique Risk Management Zones (box areas): 29
- Predominant Population Density Zone: Metropolitan



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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 20 (Metropolitan Density Zone) Fiscal Year Response Area: Number of DISPATCHED ¹ Incidents Aggregated by Accreditation Program							
Accreditation Program	Risk	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS1	MR	626	577	572	562	659	
ALS2	HR	93	96	117	110	86	
BLS	LR	1219	1199	1204	1229	1253	
Fire Full Assignment Hydranted	HR	24	29	25	17	8	
FFA-Highrise (FFA-SRHR)	SR	N/A	N/A	N/A	1	1	
FFA-Non-hydranted Area	SR	0	0	0	0	0	
Adaptive-1F	LR	57	42	33	45	37	
Adaptive-1N	LR	301	285	311	291	293	
Adaptive-2-3	MR	53	45	62	51	87	
Hazmat Low Risk ²	LR	1	0	0	0	0	
Hazmat Moderate Risk	MR	1	1	0	2	4	
Hazmat High Risk	HR	4	3	0	0	0	
Hazmat Special Risk	SR	1	2	1	0	0	
Technical Rescue	SR	0	0	0	0	1	
Water/Ice Rescue Moderate	MR	0	2	0	0	0	
Water/Ice Rescue High	HR	0	0	0	0	0	
Water/Ice Rescue Special	SR	0	0	0	0	0	
ARFF High Risk	HR	0	0	0	0	0	
ARFF Special Risk	SR	0	0	0	0	0	
Bomb Squad Moderate Risk	MR						
Bomb Squad High Risk	HR						
Bomb Squad Special Risk	SR						
Bomb Squad TOTAL		11	17	4	17	12	
Non-Accreditation Counts							
Service Call ³		268	333	287	226	207	
Total Incident Counts							
		2659	2631	2616	2551	2648	0
Total Aggregated by Overarching Program Area		FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS		719	673	689	672	745	0
BLS		1219	1199	1204	1229	1253	0
Fire Full Assignment		24	29	25	18	9	0
Adaptive ⁴		411	372	406	387	417	0
Hazmat ⁵		7	6	1	2	4	0
Technical Rescue		0	0	0	0	0	0
Water/Ice Rescue		0	2	0	0	0	0
Aircraft Rescue Firefighting		0	0	0	0	0	0
Bomb Squad Responses		11	17	4	17	12	0

¹ Dispatched incident totals offer a way of analyzing overall system demand by Station Response Area

² Hazmat low risk (LR) incidents are counted but not measured

³ Service calls also include BLS routine and occasional ALS emergency interfacility transports

Note: Adaptive responses now include inside and outside natural gas/LPG leaks, except high pressure 2" or > which are Hazmat

Note: Hazmat incidents counts no longer include inside and outside gas/LPG leaks except high pressure 2" or >

Note: During FY16 "light smoke conditions" in buildings other than high-rise/high-risk became an Adaptive 2-3 instead of a FFA response

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 21

Battalion 4

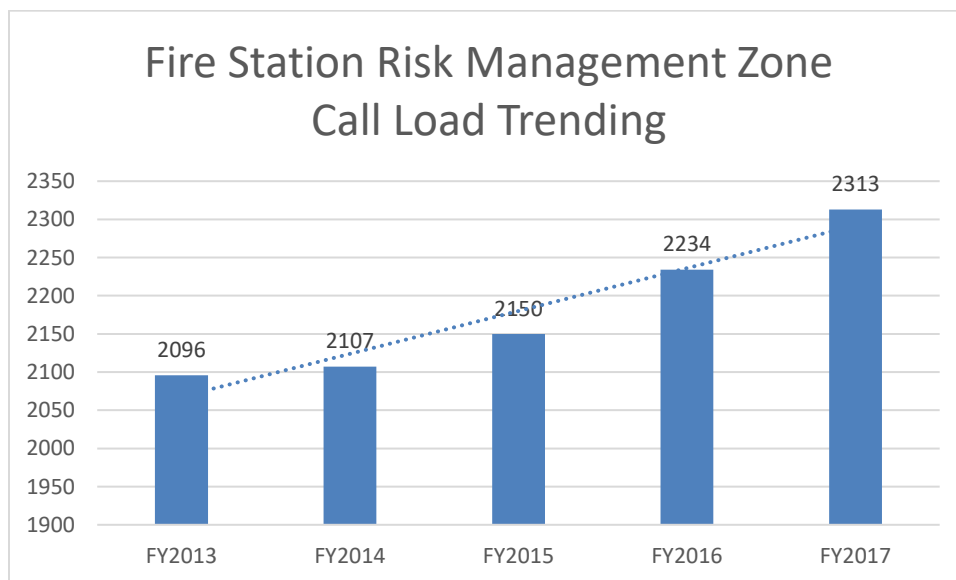
Kensington Station

12500 Veirs Mill Road, Rockville



Description

- Ownership: Volunteer
- Apparatus Housed: Paramedic Engine, Ambulance
- First Due Area: 4.1 mi²
- Number of Unique Risk Management Zones (box areas): 11
- Predominant Population Density Zone: Metropolitan



MCFRS

COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 21 (Metropolitan Density Zone) Fiscal Year Response Area: Number of DISPATCHED ¹ Incidents Aggregated by Accreditation Program							
Accreditation Program	Risk	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS1	MR	669	650	690	709	761	
ALS2	HR	120	119	118	123	117	
BLS	LR	936	910	969	1040	1058	
Fire Full Assignment Hydranted	HR	33	16	21	14	12	
FFA-Highrise (FFA-SRHR)	SR	N/A	N/A	N/A	1	0	
FFA-Non-hydranted Area	SR	0	0	0	0	0	
Adaptive-1F	LR	30	28	44	36	18	
Adaptive-1N	LR	130	150	136	152	175	
Adaptive-2-3	MR	23	25	32	27	31	
Hazmat Low Risk ²	LR	0	0	0	1	0	
Hazmat Moderate Risk	MR	0	0	0	0	5	
Hazmat High Risk	HR	0	2	0	0	0	
Hazmat Special Risk	SR	0	1	1	0	0	
Technical Rescue	SR	0	1	0	0	0	
Water/Ice Rescue Moderate	MR	0	2	0	0	0	
Water/Ice Rescue High	HR	0	0	0	0	0	
Water/Ice Rescue Special	SR	0	0	0	0	0	
ARFF High Risk	HR	0	0	0	0	0	
ARFF Special Risk	SR	0	0	0	0	0	
Bomb Squad Moderate Risk	MR						
Bomb Squad High Risk	HR						
Bomb Squad Special Risk	SR						
Bomb Squad TOTAL		7	12	9	10	10	
Non-Accreditation Counts							
Service Call ³		148	191	130	121	126	
Total Incident Counts							
		2096	2107	2150	2234	2313	0
Total Aggregated by Overarching Program Area		FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS		789	769	808	832	878	0
BLS		936	910	969	1040	1058	0
Fire Full Assignment		33	16	21	15	12	0
Adaptive ⁴		183	203	212	215	224	0
Hazmat ⁵		0	3	1	1	5	0
Technical Rescue		0	1	0	0	0	0
Water/Ice Rescue		0	2	0	0	0	0
Aircraft Rescue Firefighting		0	0	0	0	0	0
Bomb Squad Responses		7	12	9	10	10	0

¹ Dispatched incident totals offer a way of analyzing overall system demand by Station Response Area

² Hazmat low risk (LR) incidents are counted but not measured

³ Service calls also include BLS routine and occasional ALS emergency interfacility transports

Note: Adaptive responses now include inside and outside natural gas/LPG leaks, except high pressure 2" or > which are Hazmat

Note: Hazmat incidents counts no longer include inside and outside gas/LPG leaks except high pressure 2" or >

Note: During FY16 "light smoke conditions" in buildings other than high-rise/high-risk became an Adaptive 2-3 instead of a FFA response

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 22

Battalion 5

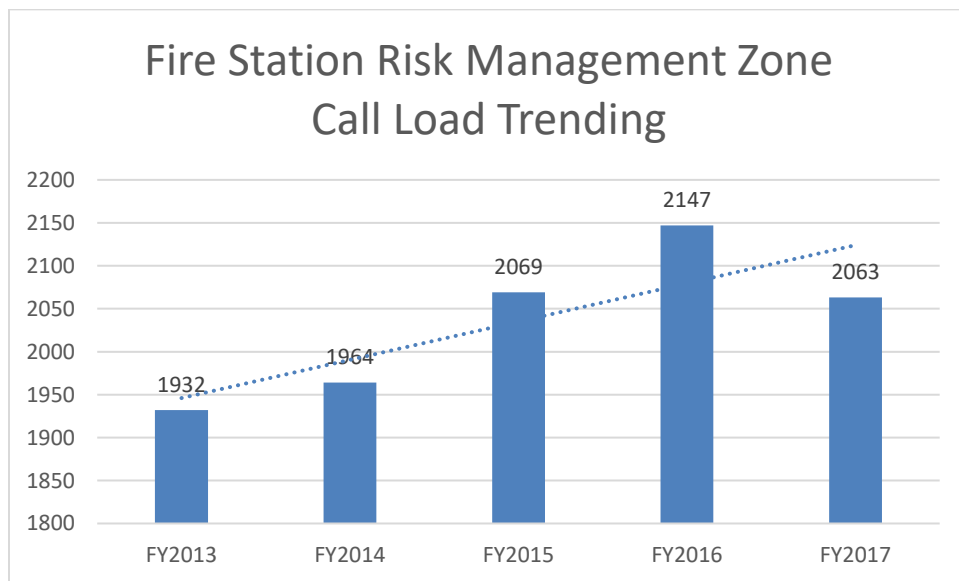
Germantown (Kingsview) Station

18910 Germantown Road, Germantown



Description

- Ownership: County
- Apparatus Housed: Paramedic Engine, Ambulance, Tanker, Brush Truck, Medical Ambulance Bus 722, Mass Casualty Support Unit 722
- First Due Area: 20.53 mi²
- Number of Unique Risk Management Zones (box areas): 16
- Predominant Population Density Zone: Suburban



MCFRS

COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 22 (Suburban Density Zone) Fiscal Year Response Area: Number of DISPATCHED ¹ Incidents Aggregated by Accreditation Program							
Accreditation Program	Risk	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS1	MR	570	539	645	661	709	
ALS2	HR	121	98	113	143	124	
BLS	LR	822	826	840	887	801	
Fire Full Assignment Hydranted	HR	24	20	27	17	9	
FFA-Highrise (FFA-SRHR)	SR	N/A	N/A	N/A	0	0	
FFA-Non-hydranted Area	SR	3	2	2	3	1	
Adaptive-1F	LR	47	26	34	59	41	
Adaptive-1N	LR	137	179	169	174	179	
Adaptive-2-3	MR	35	29	40	46	53	
Hazmat Low Risk ²	LR	1	0	1	0	1	
Hazmat Moderate Risk	MR	0	0	1	1	0	
Hazmat High Risk	HR	4	1	2	0	1	
Hazmat Special Risk	SR	1	1	0	0	0	
Technical Rescue	SR	0	0	0	0	0	
Water/Ice Rescue Moderate	MR	1	0	2	0	0	
Water/Ice Rescue High	HR	0	0	0	0	0	
Water/Ice Rescue Special	SR	0	0	0	0	0	
ARFF High Risk	HR	0	0	0	0	0	
ARFF Special Risk	SR	0	0	0	0	0	
Bomb Squad Moderate Risk	MR						
Bomb Squad High Risk	HR						
Bomb Squad Special Risk	SR						
Bomb Squad TOTAL		9	7	4	7	9	
Non-Accreditation Counts							
Service Call ³		157	236	189	149	135	
Total Incident Counts							
		1932	1964	2069	2147	2063	0
Total Aggregated by Overarching Program Area		FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS		691	637	758	804	833	0
BLS		822	826	840	887	801	0
Fire Full Assignment		27	22	29	20	10	0
Adaptive*		219	234	243	279	273	0
Hazmat*		6	2	4	1	2	0
Technical Rescue		0	0	2	0	0	0
Water/Ice Rescue		1	0	2	0	0	0
Aircraft Rescue Firefighting		0	0	0	0	0	0
Bomb Squad Responses		9	7	4	7	9	0

¹ Dispatched incident totals offer a way of analyzing overall system demand by Station Response Area

² Hazmat low risk (LR) incidents are counted but not measured

³ Service calls also include BLS routine and occasional ALS emergency interfaculty transports

Note: Adaptive responses now include inside and outside natural gas/LPG leaks, except high pressure 2" or > which are Hazmat

Note: Hazmat incidents counts no longer include inside and outside gas/LPG leaks except high pressure 2" or >

Note: During FY16 "light smoke conditions" in buildings other than high-rise/high-risk became an Adaptive 2-3 instead of a FFA response

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 23

Battalion 3

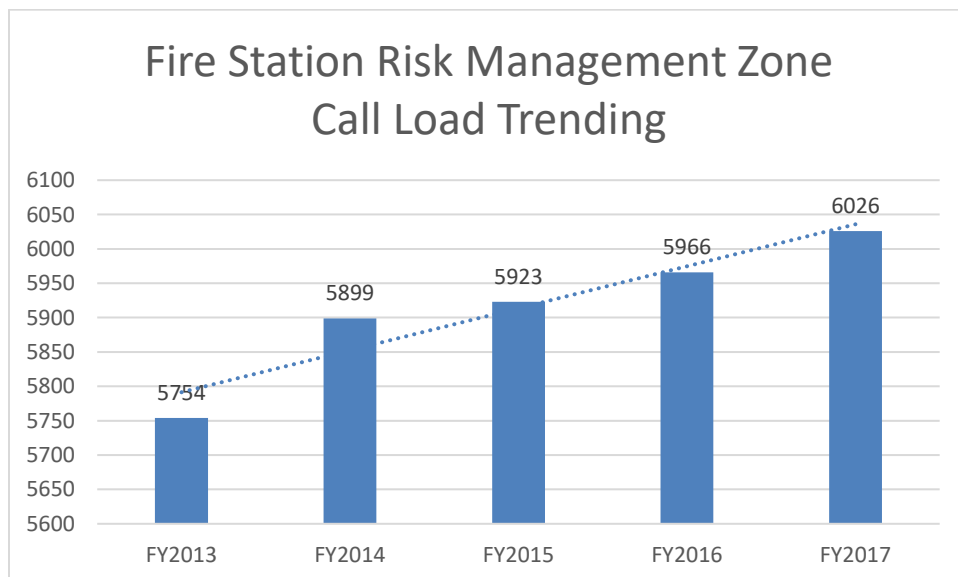
Rockville Station

121 Rollins Avenue, Rockville



Description

- Ownership: Volunteer
- Apparatus Housed: Paramedic Engine, Aerial Tower, Ambulance, Medic Unit
- First Due Area: 6.58 mi²
- Number of Unique Risk Management Zones (box areas): 32
- Predominant Population Density Zone: Metropolitan



MCFRS

COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 23 (Metropolitan Density Zone) Fiscal Year Response Area: Number of DISPATCHED ¹ Incidents Aggregated by Accreditation Program							
Accreditation Program	Risk	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS1	MR	1514	1578	1624	1536	1624	
ALS2	HR	286	255	288	294	218	
BLS	LR	2580	2626	2602	2922	2868	
Fire Full Assignment Hydranted	HR	45	39	46	24	26	
FFA-Highrise (FFA-SRHR)	SR	N/A	N/A	N/A	2	5	
FFA-Non-hydranted Area	SR	0	0	0	0	0	
Adaptive-1F	LR	96	70	74	64	63	
Adaptive-1N	LR	600	625	550	623	659	
Adaptive-2-3	MR	56	76	95	101	106	
Hazmat Low Risk ²	LR	0	0	0	0	1	
Hazmat Moderate Risk	MR	1	1	5	4	8	
Hazmat High Risk	HR	6	3	8	4	1	
Hazmat Special Risk	SR	1	2	1	2	3	
Technical Rescue	SR	0	0	0	1	1	
Water/Ice Rescue Moderate	MR	1	0	0	1	0	
Water/Ice Rescue High	HR	0	0	0	0	0	
Water/Ice Rescue Special	SR	0	0	0	0	0	
ARFF High Risk	HR	0	0	0	0	0	
ARFF Special Risk	SR	0	0	0	0	0	
Bomb Squad Moderate Risk	MR						
Bomb Squad High Risk	HR						
Bomb Squad Special Risk	SR						
Bomb Squad TOTAL		47	47	25	44	35	
Non-Accreditation Counts							
Service Call ³		521	577	605	344	408	
Total Incident Counts							
		5754	5899	5923	5966	6026	0
Total Aggregated by Overarching Program Area		FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS		1800	1833	1912	1830	1842	0
BLS		2580	2626	2602	2922	2868	0
Fire Full Assignment		45	39	46	26	31	0
Adaptive ⁴		752	771	719	788	828	0
Hazmat ⁵		8	6	14	10	13	0
Technical Rescue		0	0	0	1	0	0
Water/Ice Rescue		1	0	0	1	0	0
Aircraft Rescue Firefighting		0	0	0	0	0	0
Bomb Squad Responses		47	47	25	44	35	0

¹ Dispatched incident totals offer a way of analyzing overall system demand by Station Response Area

² Hazmat low risk (LR) incidents are counted but not measured

³ Service calls also include BLS routine and occasional ALS emergency interfacility transports

Note: Adaptive responses now include inside and outside natural gas/LPG leaks, except high pressure 2" or > which are Hazmat

Note: Hazmat incidents counts no longer include inside and outside gas/LPG leaks except high pressure 2" or >

Note: During FY16 "light smoke conditions" in buildings other than high-rise/high-risk became an Adaptive 2-3 instead of a FFA response

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 24

Battalion 1

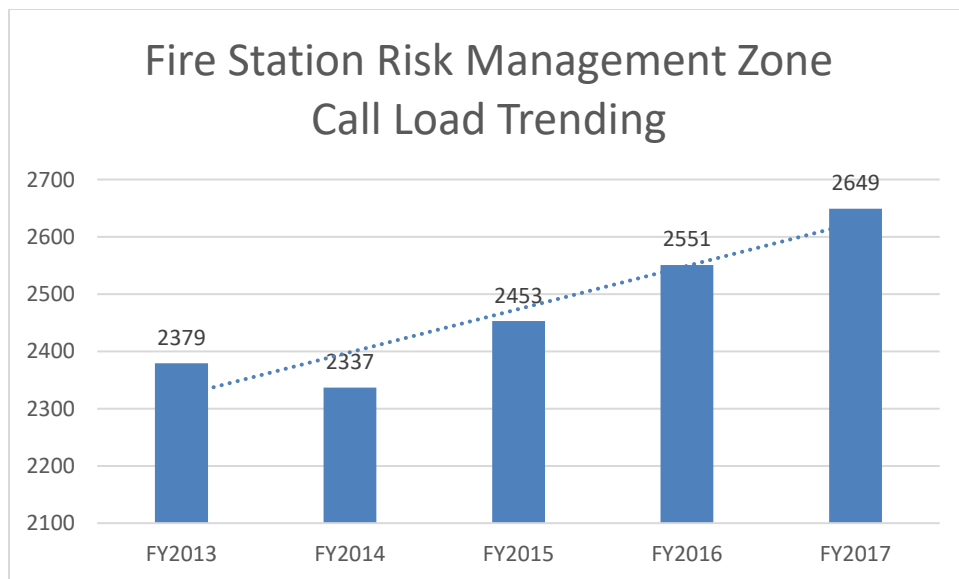
Hillandale Station

13216 New Hampshire, Silver Spring



Description

- Ownership: Volunteer
- Apparatus Housed: Paramedic Engine, Aerial Tower, Ambulance, Brush Truck
- First Due Area: 10.37 mi²
- Number of Unique Risk Management Zones (box areas): 22
- Predominant Population Density Zone: Urban



MCFRS

COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 24 (Urban Density Zone) Fiscal Year Response Area: Number of DISPATCHED ¹ Incidents Aggregated by Accreditation Program							
Accreditation Program	Risk	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS1	MR	742	710	810	850	921	
ALS2	HR	155	131	155	149	133	
BLS	LR	961	1045	976	1094	1071	
Fire Full Assignment Hydranted	HR	25	19	22	18	16	
FFA-Highrise (FFA-SRHR)	SR	N/A	N/A	N/A	0	0	
FFA-Non-hydranted Area	SR	0	1	0	0	0	
Adaptive-1F	LR	46	44	31	46	53	
Adaptive-1N	LR	221	174	205	211	234	
Adaptive-2-3	MR	25	29	39	32	46	
Hazmat Low Risk ²	LR	1	0	0	0	0	
Hazmat Moderate Risk	MR	0	0	1	0	2	
Hazmat High Risk	HR	1	5	2	1	0	
Hazmat Special Risk	SR	1	0	1	0	0	
Technical Rescue	SR	0	0	0	0	0	
Water/Ice Rescue Moderate	MR	0	0	0	1	0	
Water/Ice Rescue High	HR	0	0	0	0	0	
Water/Ice Rescue Special	SR	0	0	0	0	0	
ARFF High Risk	HR	0	0	0	0	0	
ARFF Special Risk	SR	0	0	0	0	0	
Bomb Squad Moderate Risk	MR						
Bomb Squad High Risk	HR						
Bomb Squad Special Risk	SR						
Bomb Squad TOTAL		7	9	9	12	8	
Non-Accreditation Counts							
Service Call ³		194	170	202	137	165	
Total Incident Counts							
		2379	2337	2453	2551	2649	0
Total Aggregated by Overarching Program Area		FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS		897	841	965	999	1054	0
BLS		961	1045	976	1094	1071	0
Fire Full Assignment		25	20	22	18	16	0
Adaptive ⁴		292	247	275	289	333	0
Hazmat ⁵		3	5	4	1	2	0
Technical Rescue		0	0	0	1	0	0
Water/Ice Rescue		0	0	0	1	0	0
Aircraft Rescue Firefighting		0	0	0	0	0	0
Bomb Squad Responses		7	9	9	12	8	0

¹ Dispatched incident totals offer a way of analyzing overall system demand by Station Response Area

² Hazmat low risk (LR) incidents are counted but not measured

³ Service calls also include BLS routine and occasional ALS emergency interfacility transports

Note: Adaptive responses now include inside and outside natural gas/LPG leaks, except high pressure 2" or > which are Hazmat

Note: Hazmat incidents counts no longer include inside and outside gas/LPG leaks except high pressure 2" or >

Note: During FY16 "light smoke conditions" in buildings other than high-rise/high-risk became an Adaptive 2-3 instead of a FFA response

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 25

Battalion 4

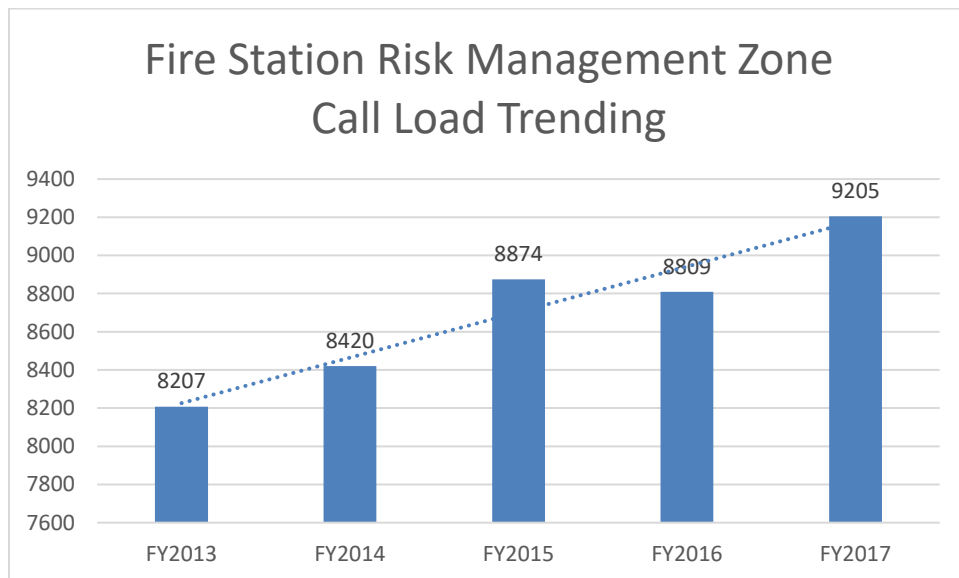
Kensington Station

14401 Connecticut Avenue, Silver Spring



Description

- Ownership: County
- Apparatus Housed: Paramedic Engine, Truck, Medic, Ambulance, Battalion Chief, Boat
- Additional Information: Special Operations Trained Staff & Equipment
- First Due Area: 10.81 mi²
- Number of Unique Risk Management Zones (box areas): 29
- Predominant Population Density Zone: Metropolitan



MCFRS

COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 25 (Metropolitan Density Zone) Fiscal Year Response Area: Number of DISPATCHED ¹ Incidents Aggregated by Accreditation Program							
Accreditation Program	Risk	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS1	MR	2393	2269	2638	2617	2865	
ALS2	HR	338	340	377	399	369	
BLS	LR	3695	3896	4016	4312	4375	
Fire Full Assignment Hydranted	HR	51	39	56	44	26	
FFA-Highrise (FFA-SRHR)	SR	N/A	N/A	N/A	1	1	
FFA-Non-hydranted Area	SR	0	0	0	0	0	
Adaptive-1F	LR	82	67	53	55	65	
Adaptive-1N	LR	351	378	391	390	419	
Adaptive-2-3	MR	126	134	148	159	203	
Hazmat Low Risk ²	LR	1	0	0	1	0	
Hazmat Moderate Risk	MR	0	2	1	3	2	
Hazmat High Risk	HR	5	10	7	0	1	
Hazmat Special Risk	SR	0	1	3	1	0	
Technical Rescue	SR	1	0	1	0	0	
Water/Ice Rescue Moderate	MR	0	0	0	0	0	
Water/Ice Rescue High	HR	0	0	0	0	0	
Water/Ice Rescue Special	SR	0	0	0	0	0	
ARFF High Risk	HR	0	0	0	0	0	
ARFF Special Risk	SR	0	0	0	0	0	
Bomb Squad Moderate Risk	MR						
Bomb Squad High Risk	HR						
Bomb Squad Special Risk	SR						
Bomb Squad TOTAL		14	15	10	14	16	
Non-Accreditation Counts							
Service Call ³		1150	1269	1173	813	863	
Total Incident Counts							
		8207	8420	8874	8809	9205	0
Total Aggregated by Overarching Program Area		FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS		2731	2609	3015	3016	3234	0
BLS		3695	3896	4016	4312	4375	0
Fire Full Assignment		51	39	56	45	27	0
Adaptive ⁴		559	579	592	604	687	0
Hazmat ⁵		6	13	11	5	3	0
Technical Rescue		1	0	0	0	0	0
Water/Ice Rescue		0	0	0	0	0	0
Aircraft Rescue Firefighting		0	0	0	0	0	0
Bomb Squad Responses		14	15	10	14	16	0

¹ Dispatched incident totals offer a way of analyzing overall system demand by Station Response Area

² Hazmat low risk (LR) incidents are counted but not measured

³ Service calls also include BLS routine and occasional ALS emergency interfacility transports

Note: Adaptive responses now include inside and outside natural gas/LPG leaks, except high pressure 2" or > which are Hazmat

Note: Hazmat incidents counts no longer include inside and outside gas/LPG leaks except high pressure 2" or >

Note: During FY16 "light smoke conditions" in buildings other than high-rise/high-risk became an Adaptive 2-3 instead of a FFA response

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 26

Battalion 2

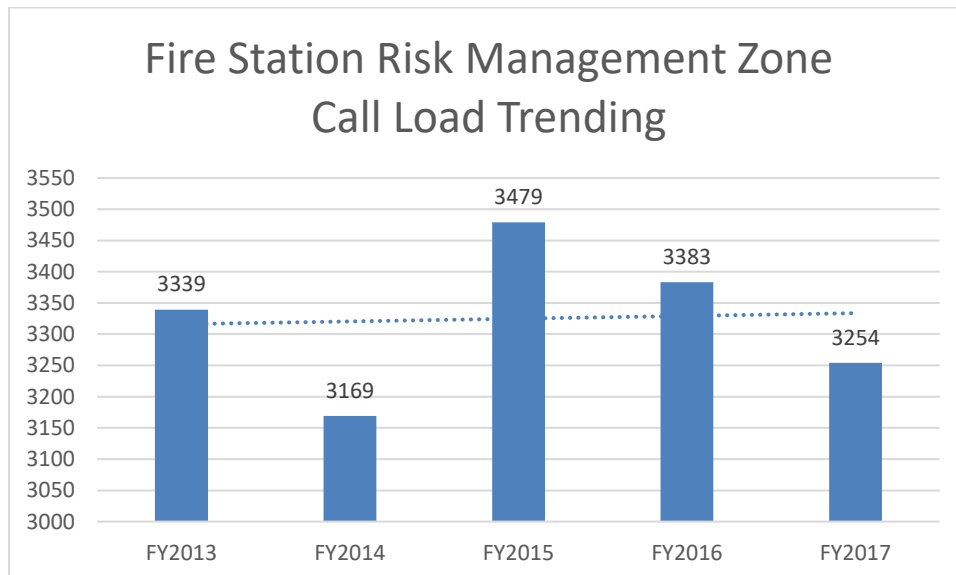
Bethesda Station

6700 Democracy Boulevard, Bethesda



Description

- Ownership: Volunteer
- Apparatus Housed: Paramedic Engine, Ambulance, Medical Ambulance Bus, Mass Casualty Support Unit
- First Due Area: 6.51 mi²
- Number of Unique Risk Management Zones (box areas): 20
- Predominant Population Density Zone: Metropolitan



MCFRS

COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 26 (Metropolitan Density Zone) Fiscal Year Response Area: Number of DISPATCHED ¹ Incidents Aggregated by Accreditation Program							
Accreditation Program	Risk	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS1	MR	893	810	916	901	914	
ALS2	HR	126	126	128	148	124	
BLS	LR	1521	1529	1691	1647	1501	
Fire Full Assignment Hydranted	HR	22	19	19	15	10	
FFA-Highrise (FFA-SRHR)	SR	N/A	N/A	N/A	2	0	
FFA-Non-hydranted Area	SR	0	0	0	0	0	
Adaptive-1F	LR	60	46	43	38	48	
Adaptive-1N	LR	439	365	399	372	383	
Adaptive-2-3	MR	47	29	43	54	64	
Hazmat Low Risk ²	LR	0	0	2	0	0	
Hazmat Moderate Risk	MR	1	1	0	1	1	
Hazmat High Risk	HR	0	4	1	2	0	
Hazmat Special Risk	SR	0	2	0	0	3	
Technical Rescue	SR	1	0	1	0	0	
Water/Ice Rescue Moderate	MR	0	2	0	1	0	
Water/Ice Rescue High	HR	0	0	0	0	0	
Water/Ice Rescue Special	SR	0	0	0	0	0	
ARFF High Risk	HR	0	0	0	0	0	
ARFF Special Risk	SR	0	0	0	0	0	
Bomb Squad Moderate Risk	MR						
Bomb Squad High Risk	HR						
Bomb Squad Special Risk	SR						
Bomb Squad TOTAL		10	16	13	24	17	
Non-Accreditation Counts							
Service Call ³		219	220	223	178	189	
Total Incident Counts							
		3339	3169	3479	3383	3254	0
Total Aggregated by Overarching Program Area		FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS		1019	936	1044	1049	1038	0
BLS		1521	1529	1691	1647	1501	0
Fire Full Assignment		22	19	19	17	10	0
Adaptive ⁴		546	440	485	464	495	0
Hazmat ⁵		1	7	3	3	4	0
Technical Rescue		1	0	0	1	0	0
Water/Ice Rescue		0	2	0	1	0	0
Aircraft Rescue Firefighting		0	0	0	0	0	0
Bomb Squad Responses		10	16	13	24	17	0

¹ Dispatched incident totals offer a way of analyzing overall system demand by Station Response Area

² Hazmat low risk (LR) incidents are counted but not measured

³ Service calls also include BLS routine and occasional ALS emergency interfacility transports

Note: Adaptive responses now include inside and outside natural gas/LPG leaks, except high pressure 2" or > which are Hazmat

Note: Hazmat incidents counts no longer include inside and outside gas/LPG leaks except high pressure 2" or >

Note: During FY16 "light smoke conditions" in buildings other than high-rise/high-risk became an Adaptive 2-3 instead of a FFA response

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 27

Fire Station 27 is the number given to the Training Academy area footprint. Since there are no daily deployable resources there, the response data for this station response area is not analyzed.

8751 Snouffer School Rd, Montgomery Village



MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 28

Battalion 3

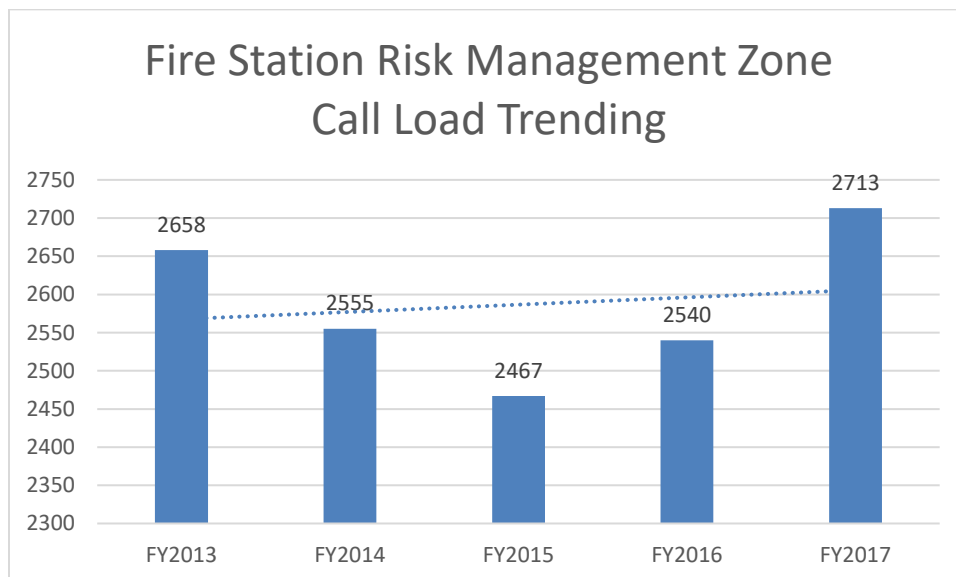
Gaithersburg Station

7272 Muncaster Mill Road, Derwood



Description

- Ownership: Volunteer
- Apparatus Housed: Paramedic Engine, Ambulance, HazMat Unit
- Specialty Team: Hazmat
- First Due Area: 16.35 mi²
- Number of Unique Risk Management Zones (box areas): 29
- Predominant Population Density Zone: Suburban



MCFRS

COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 28 (Suburban Density Zone) Fiscal Year Response Area: Number of DISPATCHED ¹ Incidents Aggregated by Accreditation Program							
Accreditation Program	Risk	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS1	MR	757	721	742	788	851	
ALS2	HR	141	160	139	152	125	
BLS	LR	1165	1124	1058	1101	1206	
Fire Full Assignment Hydranted	HR	32	28	27	22	11	
FFA-Highrise (FFA-SRHR)	SR	N/A	N/A	N/A	0	0	
FFA-Non-hydranted Area	SR	0	1	2	3	0	
Adaptive-1F	LR	62	63	58	58	57	
Adaptive-1N	LR	279	260	249	220	265	
Adaptive-2-3	MR	47	52	43	47	69	
Hazmat Low Risk ²	LR	0	0	0	2	1	
Hazmat Moderate Risk	MR	0	1	2	3	2	
Hazmat High Risk	HR	2	3	4	0	1	
Hazmat Special Risk	SR	1	5	1	3	4	
Technical Rescue	SR	2	0	1	0	1	
Water/Ice Rescue Moderate	MR	1	4	1	0	1	
Water/Ice Rescue High	HR	0	0	0	0	0	
Water/Ice Rescue Special	SR	0	0	0	0	0	
ARFF High Risk	HR	0	1	3	0	0	
ARFF Special Risk	SR	0	0	1	1	0	
Bomb Squad Moderate Risk	MR						
Bomb Squad High Risk	HR						
Bomb Squad Special Risk	SR						
Bomb Squad TOTAL		11	9	11	11	18	
Non-Accreditation Counts							
Service Call ³		158	123	125	129	101	
Total Incident Counts							
		2658	2555	2467	2540	2713	0
Total Aggregated by Overarching Program Area		FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS		898	881	881	940	976	0
BLS		1165	1124	1058	1101	1206	0
Fire Full Assignment		32	29	29	25	11	0
Adaptive ⁴		388	375	350	325	391	0
Hazmat ⁵		3	9	7	8	8	0
Technical Rescue		2	0	1	0	1	0
Water/Ice Rescue		1	4	1	0	1	0
Aircraft Rescue Firefighting		0	1	4	1	0	0
Bomb Squad Responses		11	9	11	11	18	0

¹ Dispatched incident totals offer a way of analyzing overall system demand by Station Response Area

² Hazmat low risk (LR) incidents are counted but not measured

³ Service calls also include BLS routine and occasional ALS emergency interfacility transports

Note: Adaptive responses now include inside and outside natural gas/LPG leaks, except high pressure 2" or > which are Hazmat

Note: Hazmat incidents counts no longer include inside and outside gas/LPG leaks except high pressure 2" or >

Note: During FY16 "light smoke conditions" in buildings other than high-rise/high-risk became an Adaptive 2-3 instead of a FFA response

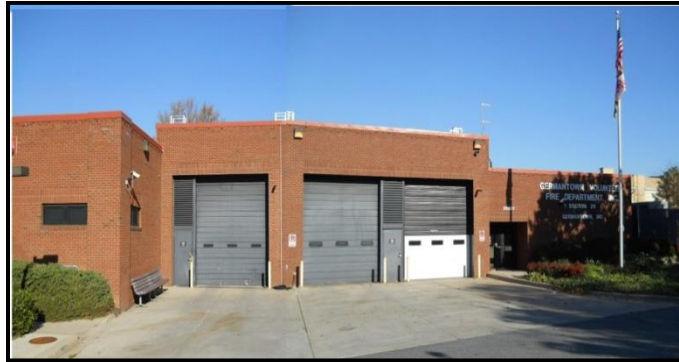
MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 29

Battalion 5

Germantown Station

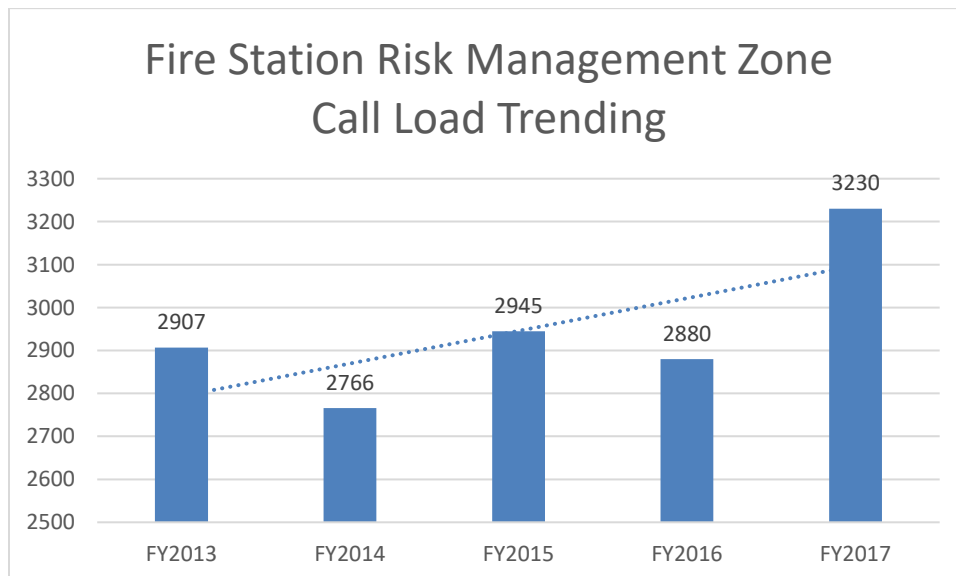
20001 Crystal Rock Drive, Germantown



Description

- Ownership: County
- Apparatus Housed: Paramedic Engine, Rescue Squad, Medic, Ambulance*, Boat
- First Due Area: 4.68 mi²
- Number of Unique Risk Management Zones (box areas): 11
- Predominant Population Density Zone: Metropolitan

*Only staffed when volunteer personnel are in the station



MCFRS

COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 29 (Metropolitan Density Zone) Fiscal Year Response Area: Number of DISPATCHED¹ Incidents Aggregated by Accreditation							
Accreditation Program	Risk	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS1	MR	791	739	867	889	1066	
ALS2	HR	179	154	169	166	151	
BLS	LR	1112	1200	1206	1222	1345	
Fire Full Assignment	HR	23	29	34	31	26	
FFA-Highrise (FFA-SRHR)	SR	N/A	N/A	N/A	0	0	
FFA-Non-hydranted Area	SR	0	0	0	0	0	
Adaptive-1F	LR	76	45	58	50	75	
Adaptive-1N	LR	255	272	287	286	286	
Adaptive-2-3	MR	67	51	56	65	66	
Hazmat Low Risk ²	LR	0	0	0	0	0	
Hazmat Moderate Risk	MR	1	0	1	1	4	
Hazmat High Risk	HR	4	3	1	1	0	
Hazmat Special Risk	SR	0	2	1	1	0	
Technical Rescue	SR	0	0	1	0	0	
Water/Ice Rescue Moderate	MR	0	0	0	0	0	
Water/Ice Rescue High	HR	0	0	0	0	0	
Water/Ice Rescue Special	SR	0	0	0	0	0	
ARFF High Risk	HR	0	0	0	0	0	
ARFF Special Risk	SR	0	0	0	0	0	
Bomb Squad Moderate Risk	MR						
Bomb Squad High Risk	HR						
Bomb Squad Special Risk	SR						
Bomb Squad TOTAL		15	13	20	14	24	
Non-Accreditation							
Service Call ³		384	258	244	154	187	
Total Incident Counts							
Total Aggregated by Overarching Program Area		FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS		970	893	1036	1055	1217	0
BLS		1112	1200	1206	1222	1345	0
Fire Full Assignment		23	29	34	31	26	0
Adaptive ⁴		398	368	401	401	427	0
Hazmat ⁵		5	5	3	3	4	0
Technical Rescue		0	0	0	0	0	0
Water/Ice Rescue		0	0	0	0	0	0
Aircraft Rescue Firefighting		0	0	0	0	0	0
Bomb Squad Responses		15	13	20	14	24	0

¹ Dispatched incident totals offer a way of analyzing overall system demand by Station Response Area

² Hazmat low risk (LR) incidents are counted but not measured

³ Service calls also include BLS routine and occasional ALS emergency interfacility transports

Note: Adaptive responses now include inside and outside natural gas/LPG leaks, except high pressure 2" or > which are Hazmat

Note: Hazmat incidents counts no longer include inside and outside gas/LPG leaks except high pressure 2" or >

Note: During FY16 "light smoke conditions" in buildings other than high-rise/high-risk became an Adaptive 2-3 instead of a FFA response

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 30

Battalion 2

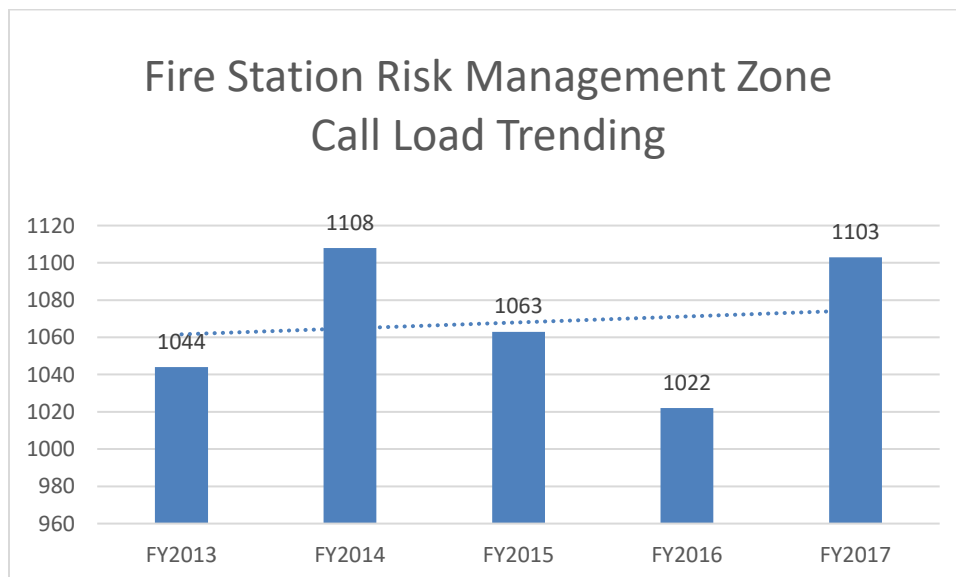
Cabin John Station

9404 Falls Road, Potomac



Description

- Ownership: Volunteer
- Apparatus Housed: Paramedic Engine, Ambulance, Tanker, 2-Boats
- Specialty Team: Swift Water Rescue
- First Due Area: 17.21 mi²
- Number of Unique Risk Management Zones (box areas): 22
- Predominant Population Density Zone: Rural



MCFRS

COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 30 (Rural Density Zone) Fiscal Year Response Area: Number of DISPATCHED ¹ Incidents Aggregated by Accreditation Program							
Accreditation Program	Risk	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS1	MR	231	256	233	227	270	
ALS2	HR	39	49	43	53	42	
BLS	LR	307	341	338	338	373	
Fire Full Assignment Hydranted	HR	20	12	13	7	4	
FFA-Highrise (FFA-SRHR)	SR	N/A	N/A	N/A	0	0	
FFA-Non-hydranted Area	SR	2	2	2	0	0	
Adaptive-1F	LR	16	21	10	18	13	
Adaptive-1N	LR	253	234	251	218	219	
Adaptive-2-3	MR	17	19	22	20	26	
Hazmat Low Risk ²	LR	0	0	0	0	0	
Hazmat Moderate Risk	MR	0	0	1	2	0	
Hazmat High Risk	HR	1	1	0	0	0	
Hazmat Special Risk	SR	0	0	0	3	0	
Technical Rescue	SR	0	0	1	0	1	
Water/Ice Rescue Moderate	MR	0	6	1	1	1	
Water/Ice Rescue High	HR	0	0	0	0	1	
Water/Ice Rescue Special	SR	31	36	42	42	45	
ARFF High Risk	HR	0	0	0	0	0	
ARFF Special Risk	SR	0	0	0	1	0	
Bomb Squad Moderate Risk	MR						
Bomb Squad High Risk	HR						
Bomb Squad Special Risk	SR						
Bomb Squad TOTAL		8	10	5	5	4	
Non-Accreditation Counts							
Service Call ³		119	121	101	87	104	
Total Incident Counts							
		1044	1108	1063	1022	1103	0
Total Aggregated by Overarching Program Area		FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS		270	305	276	280	312	0
BLS		307	341	338	338	373	0
Fire Full Assignment		22	14	15	7	4	0
Adaptive ⁴		286	274	283	256	258	0
Hazmat ⁵		1	1	1	5	0	0
Technical Rescue		0	0	1	1	1	0
Water/Ice Rescue		31	42	43	43	47	0
Aircraft Rescue Firefighting		0	0	0	1	0	0
Bomb Squad Responses		8	10	5	5	4	0

¹ Dispatched incident totals offer a way of analyzing overall system demand by Station Response Area

² Hazmat low risk (LR) incidents are counted but not measured

³ Service calls also include BLS routine and occasional ALS emergency interfacility transports

Note: Adaptive responses now include inside and outside natural gas/LPG leaks, except high pressure 2" or > which are Hazmat

Note: Hazmat incidents counts no longer include inside and outside gas/LPG leaks except high pressure 2" or >

Note: During FY16 "light smoke conditions" in buildings other than high-rise/high-risk became an Adaptive 2-3 instead of a FFA response

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COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 31

Battalion 3

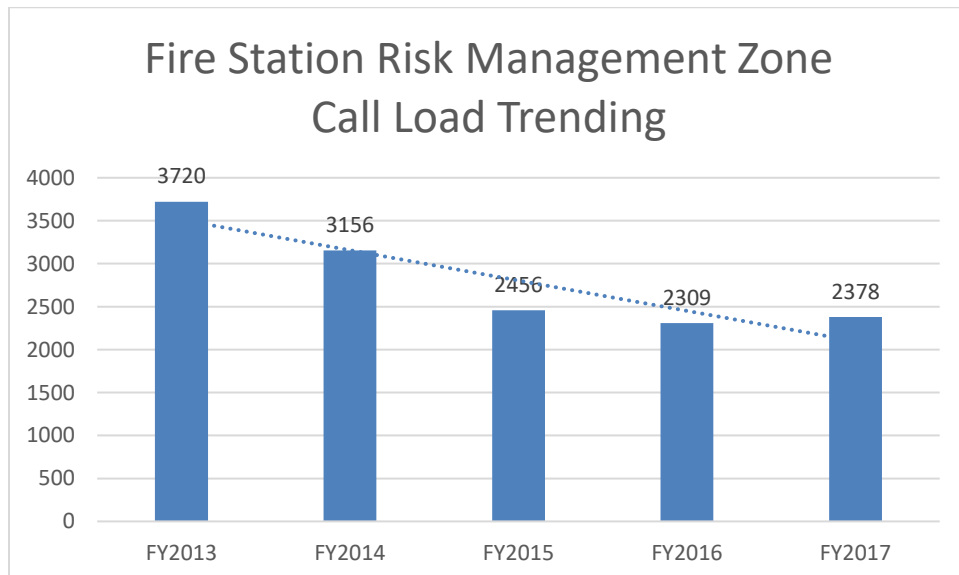
Rockville Station

12100 Darnestown Road, North Potomac



Description

- Ownership: County
- Apparatus Housed: Paramedic Engine, Truck, Medic Unit, Tanker, Boat, ATV, Technical Rescue Unit 700
- Specialty Team: Technical Rescue
- First Due Area: 38.49 mi²
- Number of Unique Risk Management Zones (box areas): 32
- Predominant Population Density Zone: Suburban



Note: Fire Station 32 opened for the first time on 2/27/14 which explains the decrease in runs in Station 31's area beginning in FY15.

MCFRS

COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 31 (Suburban Density Zone) Fiscal Year Response Area: Number of DISPATCHED ¹ Incidents Aggregated by Accreditation Program							
Accreditation Program	Risk	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS1	MR	1012	851	649	662	708	
ALS2	HR	240	148	145	109	110	
BLS	LR	1417	1154	929	921	897	
Fire Full Assignment Hydranted	HR	43	35	24	18	16	
FFA-Highrise (FFA-SRHR)	SR	N/A	N/A	N/A	0	0	
FFA-Non-hydranted Area	SR	3	2	3	4	1	
Adaptive-1F	LR	75	72	36	62	49	
Adaptive-1N	LR	459	471	318	287	318	
Adaptive-2-3	MR	86	67	54	48	63	
Hazmat Low Risk ²	LR	1	1	1	0	1	
Hazmat Moderate Risk	MR	0	2	1	0	1	
Hazmat High Risk	HR	4	3	2	0	0	
Hazmat Special Risk	SR	2	3	3	0	2	
Technical Rescue	SR	1	0	0	0	0	
Water/Ice Rescue Moderate	MR	3	4	2	0	0	
Water/Ice Rescue High	HR	5	3	2	1	1	
Water/Ice Rescue Special	SR	3	1	2	4	3	
ARFF High Risk	HR	0	0	0	0	0	
ARFF Special Risk	SR	0	0	0	0	0	
Bomb Squad Moderate Risk	MR						
Bomb Squad High Risk	HR						
Bomb Squad Special Risk	SR						
Bomb Squad TOTAL		21	19	8	12	9	
Non-Accreditation Counts							
Service Call ³		345	320	277	181	199	
Total Incident Counts							
		3720	3156	2456	2309	2378	0
Total Aggregated by Overarching Program Area		FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS		1252	999	794	771	818	0
BLS		1417	1154	929	921	897	0
Fire Full Assignment		46	37	27	22	17	0
Adaptive ⁴		620	610	408	397	430	0
Hazmat ⁵		7	9	7	0	4	0
Technical Rescue		1	0	2	0	0	0
Water/Ice Rescue		11	8	6	5	4	0
Aircraft Rescue Firefighting		0	0	0	0	0	0
Bomb Squad Responses		21	19	8	12	9	0

¹ Dispatched incident totals offer a way of analyzing overall system demand by Station Response Area

² Hazmat low risk (LR) incidents are counted but not measured

³ Service calls also include BLS routine and occasional ALS emergency interfacility transports

Note: Adaptive responses now include inside and outside natural gas/LPG leaks, except high pressure 2" or > which are Hazmat

Note: Hazmat incidents counts no longer include inside and outside gas/LPG leaks except high pressure 2" or >

Note: During FY16 "light smoke conditions" in buildings other than high-rise/high-risk became an Adaptive 2-3 instead of a FFA response

Note: FS32 opened for the first time on 2/27/14 which explains the decrease in runs beginning in FY15

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 32

Battalion 3

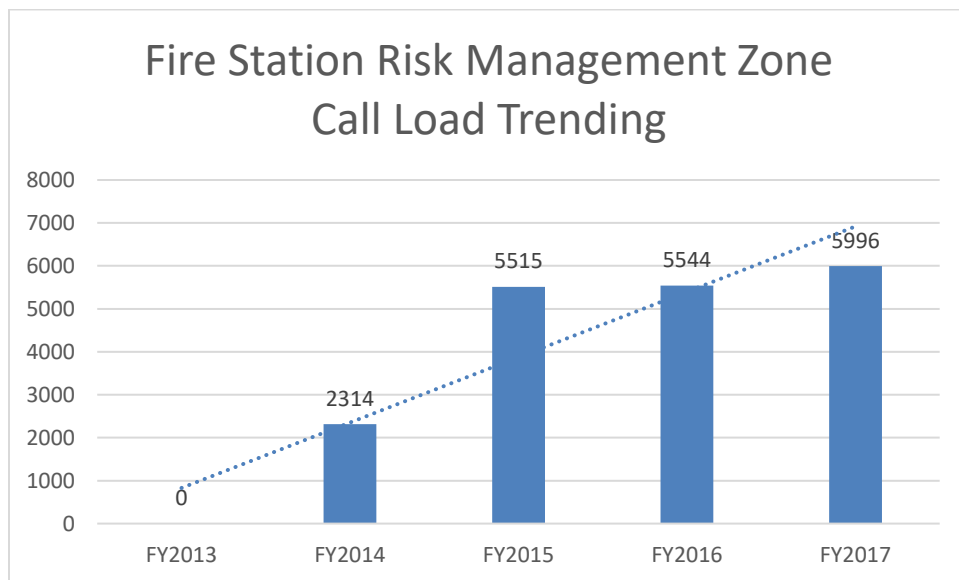
Travilah Station

9615 Darnestown Road, Rockville



Description

- Ownership: County
- Apparatus Housed: Paramedic Engine, Ambulance, Battalion Chief, Duty Operations Chief (Assistant Chief), EMS Supervisor, Safety Officer, Mobile Command Unit
- First Due Area: 13.00 mi²
- Number of Unique Risk Management Zones (box areas): 39
- Predominant Population Density Zone: Metropolitan



Note: FS32 opened for the first time on 2/27/14 which explains no FY13 counts and low FY14 counts. In addition, prior to the anticipated opening, the FS32 box areas were enabled in CAD and incidents in FY14 prior to the actual opening were logged and handled by surrounding stations.

MCFRS

COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 32 (Metropolitan Density Zone) Fiscal Year Response Area: Number of DISPATCHED ¹ Incidents Aggregated by Accreditation Program							
Accreditation Program	Risk	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS1	MR	N/A	726	1627	1656	1877	
ALS2	HR	N/A	92	224	284	227	
BLS	LR	N/A	1022	2425	2511	2722	
Fire Full Assignment Hydranted	HR	N/A	19	34	22	17	
FFA-Highrise (FFA-SRHR)	SR	N/A	N/A	N/A	2	1	
FFA-Non-hydranted Area	SR	N/A	0	0	0	1	
Adaptive-1F	LR	N/A	29	57	63	78	
Adaptive-1N	LR	N/A	240	640	604	609	
Adaptive-2-3	MR	N/A	31	85	90	112	
Hazmat Low Risk ²	LR	N/A	0	0	0	1	
Hazmat Moderate Risk	MR	N/A	2	3	6	5	
Hazmat High Risk	HR	N/A	1	2	2	1	
Hazmat Special Risk	SR	N/A	4	2	2	6	
Technical Rescue	SR	N/A	1	0	0	1	
Water/Ice Rescue Moderate	MR	N/A	1	0	1	0	
Water/Ice Rescue High	HR	N/A	0	0	0	0	
Water/Ice Rescue Special	SR	N/A	0	0	0	0	
ARFF High Risk	HR	N/A	0	0	0	0	
ARFF Special Risk	SR	N/A	0	0	0	0	
Bomb Squad Moderate Risk	MR	N/A					
Bomb Squad High Risk	HR	N/A					
Bomb Squad Special Risk	SR	N/A					
Bomb Squad TOTAL		N/A	5	23	21	24	
Non-Accreditation Counts							
Service Call ³		N/A	141	393	280	314	
Total Incident Counts							
		0	2314	5515	5544	5996	0
Total Aggregated by Overarching Program Area		FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS		N/A	818	1851	1940	2104	0
BLS		N/A	1022	2425	2511	2722	0
Fire Full Assignment		N/A	19	34	24	19	0
Adaptive*		N/A	300	782	757	799	0
Hazmat*		N/A	7	7	10	13	0
Technical Rescue		N/A	1	0	1	0	0
Water/Ice Rescue		N/A	1	0	1	0	0
Aircraft Rescue Firefighting		N/A	0	0	0	0	0
Bomb Squad Responses		N/A	5	23	21	24	0

¹ Dispatched incident totals offer a way of analyzing overall system demand by Station Response Area

² Hazmat low risk (LR) incidents are counted but not measured

³ Service calls also include BLS routine and occasional ALS emergency interfacility transports

Note: Adaptive responses now include inside and outside natural gas/LPG leaks, except high pressure 2" or > which are Hazmat

Note: Hazmat incidents counts no longer include inside and outside gas/LPG leaks except high pressure 2" or >

Note: During FY16 "light smoke conditions" in buildings other than high-rise/high-risk became an Adaptive 2-3 instead of a FFA response

Note: FS32 opened for the first time on 2/27/14 which explains no FY13 counts and low FY14 counts

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 33

Battalion 3

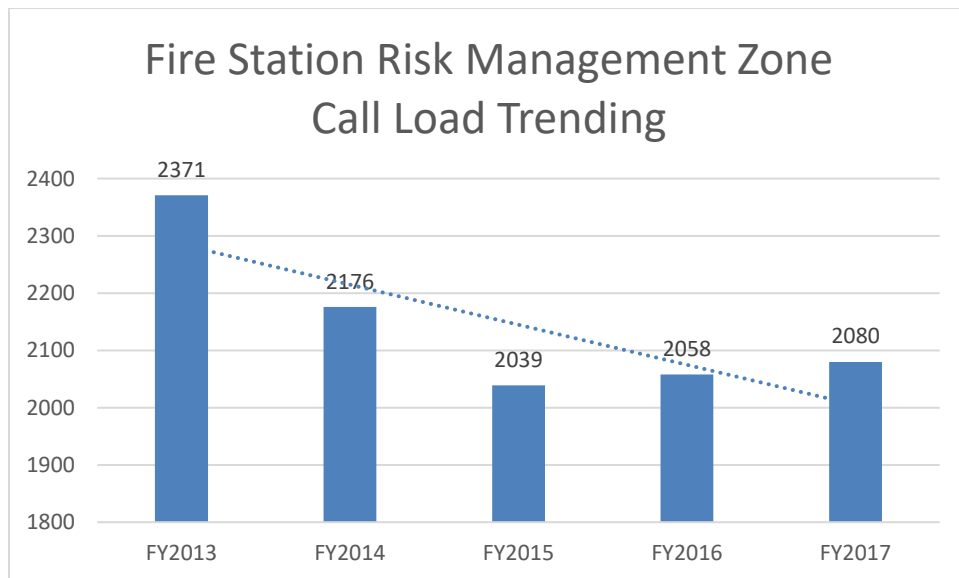
Rockville Station

11430 Falls Road, Potomac



Description

- Ownership: Volunteer
- Apparatus Housed: Paramedic Engine, Ambulance, Air Unit, Brush Truck
- First Due Area: 15.09 mi²
- Number of Unique Risk Management Zones (box areas): 19
- Predominant Population Density Zone: Urban



Note: Fire Station 32 opened for the first time on 2/27/14 which explains the decrease in runs in Station 33's area beginning in FY15

MCFRS

COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 33 (Urban Density Zone) Fiscal Year Response Area: Number of DISPATCHED ¹ Incidents Aggregated by Accreditation Program							
Accreditation Program	Risk	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS1	MR	705	616	551	625	600	
ALS2	HR	114	94	107	108	96	
BLS	LR	935	874	801	784	842	
Fire Full Assignment Hydranted	HR	15	17	15	10	15	
FFA-Highrise (FFA-SRHR)	SR	N/A	N/A	N/A	1	1	
FFA-Non-hydranted Area	SR	0	0	0	0	0	
Adaptive-1F	LR	38	25	22	26	30	
Adaptive-1N	LR	311	272	290	285	278	
Adaptive-2-3	MR	40	38	46	37	35	
Hazmat Low Risk ²	LR	0	0	1	0	0	
Hazmat Moderate Risk	MR	0	1	0	0	1	
Hazmat High Risk	HR	3	2	2	1	0	
Hazmat Special Risk	SR	0	3	1	1	0	
Technical Rescue	SR	0	0	0	0	0	
Water/Ice Rescue Moderate	MR	1	5	0	1	0	
Water/Ice Rescue High	HR	0	0	0	0	0	
Water/Ice Rescue Special	SR	0	0	0	0	0	
ARFF High Risk	HR	0	0	0	0	0	
ARFF Special Risk	SR	0	0	0	0	0	
Bomb Squad Moderate Risk	MR						
Bomb Squad High Risk	HR						
Bomb Squad Special Risk	SR						
Bomb Squad TOTAL		19	5	13	6	4	
Non-Accreditation Counts							
Service Call ³		190	224	190	173	178	
Total Incident Counts							
		2371	2176	2039	2058	2080	0
Total Aggregated by Overarching Program Area		FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS		819	710	658	733	696	0
BLS		935	874	801	784	842	0
Fire Full Assignment		15	17	15	11	16	0
Adaptive ⁴		389	335	358	348	343	0
Hazmat ⁵		3	6	4	2	1	0
Technical Rescue		0	0	0	1	0	0
Water/Ice Rescue		1	5	0	1	0	0
Aircraft Rescue Firefighting		0	0	0	0	0	0
Bomb Squad Responses		19	5	13	6	4	0

¹ Dispatched incident totals offer a way of analyzing overall system demand by Station Response Area

² Hazmat low risk (LR) incidents are counted but not measured

³ Service calls also include BLS routine and occasional ALS emergency interfacility transports

Note: Adaptive responses now include inside and outside natural gas/LPG leaks, except high pressure 2" or > which are Hazmat

Note: Hazmat incidents counts no longer include inside and outside gas/LPG leaks except high pressure 2" or >

Note: During FY16 "light smoke conditions" in buildings other than high-rise/high-risk became an Adaptive 2-3 instead of a FFA response

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 34

Battalion 5

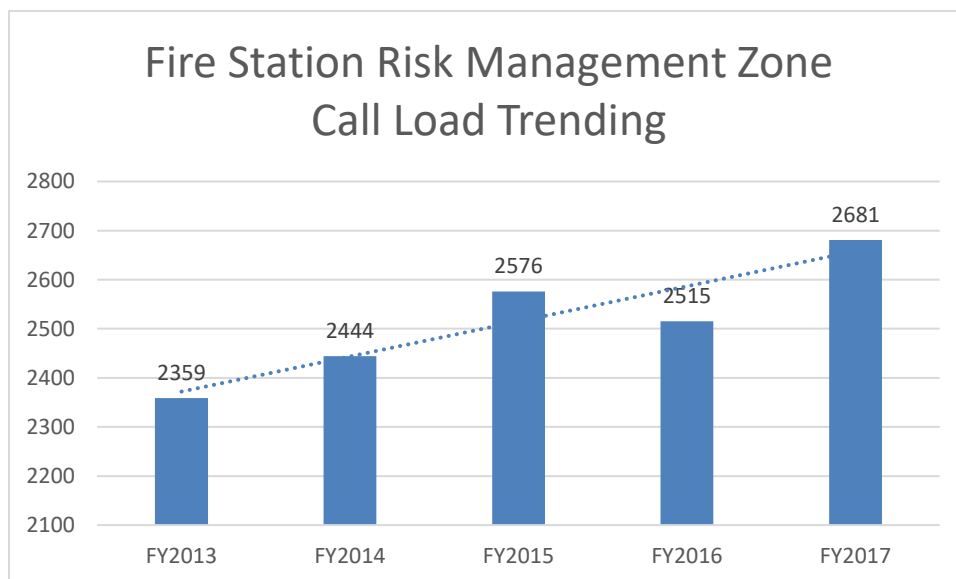
Germantown (Milestone) Station

20633 Boland Farm Road, Germantown



Description

- Ownership: County
- Apparatus Housed: Paramedic Engine, Truck, Ambulance, Battalion Chief
- First Due Area: 13.26 mi²
- Number of Unique Risk Management Zones (box areas): 26
- Predominant Population Density Zone: Urban



MCFRS

COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 34 (Urban Density Zone) Fiscal Year Response Area: Number of DISPATCHED ¹ Incidents Aggregated by Accreditation Program							
Accreditation Program	Risk	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS1	MR	684	673	793	722	832	
ALS2	HR	169	146	130	153	111	
BLS	LR	977	1009	1055	1091	1196	
Fire Full Assignment Hydranted	HR	32	31	23	17	16	
FFA-Highrise (FFA-SRHR)	SR	N/A	N/A	N/A	0	1	
FFA-Non-hydranted Area	SR	0	3	1	5	0	
Adaptive-1F	LR	55	58	55	47	49	
Adaptive-1N	LR	215	298	269	252	240	
Adaptive-2-3	MR	39	33	40	45	55	
Hazmat Low Risk ²	LR	0	0	0	0	0	
Hazmat Moderate Risk	MR	1	0	0	2	2	
Hazmat High Risk	HR	1	3	2	2	3	
Hazmat Special Risk	SR	2	1	2	0	2	
Technical Rescue	SR	0	0	0	0	0	
Water/Ice Rescue Moderate	MR	2	0	0	0	0	
Water/Ice Rescue High	HR	0	0	0	0	0	
Water/Ice Rescue Special	SR	0	0	0	0	0	
ARFF High Risk	HR	0	0	0	0	0	
ARFF Special Risk	SR	0	0	0	0	0	
Bomb Squad Moderate Risk	MR						
Bomb Squad High Risk	HR						
Bomb Squad Special Risk	SR						
Bomb Squad TOTAL		19	12	11	12	14	
Non-Accreditation Counts							
Service Call ³		163	177	195	167	160	
Total Incident Counts							
Total Aggregated by Overarching Program Area		FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS		853	819	923	875	943	0
BLS		977	1009	1055	1091	1196	0
Fire Full Assignment		32	34	24	22	17	0
Adaptive ⁴		309	389	364	344	344	0
Hazmat ⁵		4	4	4	4	7	0
Technical Rescue		0	0	0	0	0	0
Water/Ice Rescue		2	0	0	0	0	0
Aircraft Rescue Firefighting		0	0	0	0	0	0
Bomb Squad Responses		19	12	11	12	14	0

¹ Dispatched incident totals offer a way of analyzing overall system demand by Station Response Area

² Hazmat low risk (LR) incidents are counted but not measured

³ Service calls also include BLS routine and occasional ALS emergency interfacility transports

Note: Adaptive responses now include inside and outside natural gas/LPG leaks, except high pressure 2" or > which are Hazmat

Note: Hazmat incidents counts no longer include inside and outside gas/LPG leaks except high pressure 2" or >

Note: During FY16 "light smoke conditions" in buildings other than high-rise/high-risk became an Adaptive 2-3 instead of a FFA response

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 35

Battalion 5

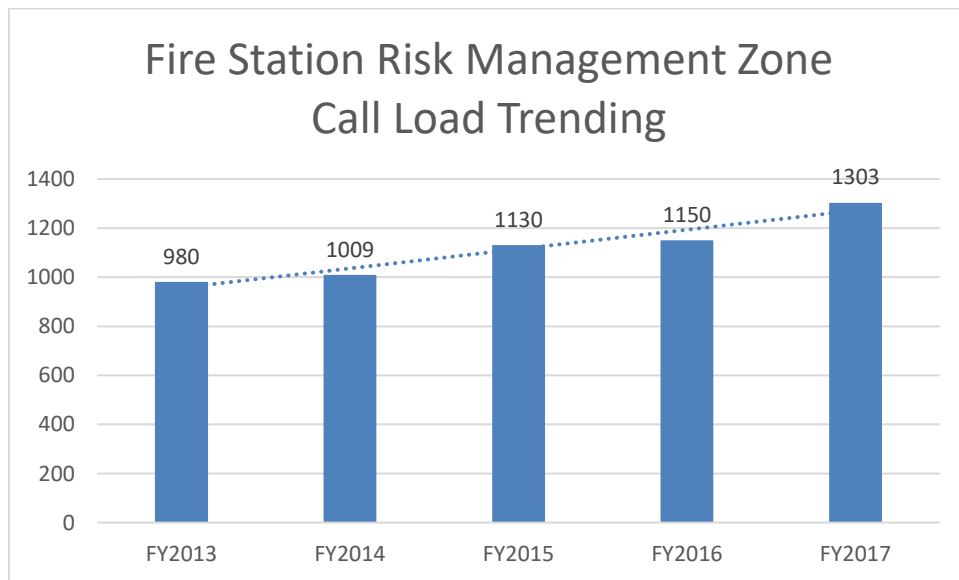
Clarksburg Station

22610 Gateway Center Drive, Suite 300, Clarksburg



Description

- Ownership: County (Leased Interim facility)
- Apparatus Housed: Paramedic Engine, Aerial Tower, Ambulance
- First Due Area: 21.47 mi²
- Number of Unique Risk Management Zones (box areas): 19
- Predominant Population Density Zone: Rural



MCFRS

COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 35 (Rural Density Zone) Fiscal Year Response Area: Number of DISPATCHED ¹ Incidents Aggregated by Accreditation Program							
Accreditation Program	Risk	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS1	MR	279	279	341	346	426	
ALS2	HR	47	50	50	58	49	
BLS	LR	383	384	414	472	538	
Fire Full Assignment Hydranted	HR	7	11	11	2	5	
FFA-Highrise (FFA-SRHR)	SR	N/A	N/A	N/A	0	0	
FFA-Non-hydranted Area	SR	0	3	2	1	0	
Adaptive-1F	LR	37	27	19	23	27	
Adaptive-1N	LR	98	110	158	141	146	
Adaptive-2-3	MR	27	33	30	37	35	
Hazmat Low Risk ²	LR	0	0	0	0	1	
Hazmat Moderate Risk	MR	0	0	0	1	0	
Hazmat High Risk	HR	1	0	0	1	0	
Hazmat Special Risk	SR	3	0	3	3	3	
Technical Rescue	SR	0	0	0	0	0	
Water/Ice Rescue Moderate	MR	5	4	0	1	2	
Water/Ice Rescue High	HR	0	0	0	0	0	
Water/Ice Rescue Special	SR	0	0	0	0	0	
ARFF High Risk	HR	0	0	0	0	0	
ARFF Special Risk	SR	0	0	0	0	0	
Bomb Squad Moderate Risk	MR						
Bomb Squad High Risk	HR						
Bomb Squad Special Risk	SR						
Bomb Squad TOTAL		2	4	5	7	5	
Non-Accreditation Counts							
Service Call ³		91	104	97	57	66	
Total Incident Counts							
		980	1009	1130	1150	1303	0
Total Aggregated by Overarching Program Area		FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS		326	329	391	404	475	0
BLS		383	384	414	472	538	0
Fire Full Assignment		7	14	13	3	5	0
Adaptive ⁴		162	170	207	201	208	0
Hazmat ⁵		4	0	3	5	4	0
Technical Rescue		0	0	0	1	2	0
Water/Ice Rescue		5	4	0	1	2	0
Aircraft Rescue Firefighting		0	0	0	0	0	0
Bomb Squad Responses		2	4	5	7	5	0

¹ Dispatched incident totals offer a way of analyzing overall system demand by Station Response Area

² Hazmat low risk (LR) incidents are counted but not measured

³ Service calls also include BLS routine and occasional ALS emergency interfacility transports

Note: Adaptive responses now include inside and outside natural gas/LPG leaks, except high pressure 2" or > which are Hazmat

Note: Hazmat incidents counts no longer include inside and outside gas/LPG leaks except high pressure 2" or >

Note: During FY16 "light smoke conditions" in buildings other than high-rise/high-risk became an Adaptive 2-3 instead of a FFA response

MCFRS
COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Possible Future Fire Station 36

2016-2022 FIRE, RESCUE, EMERGENCY MEDICAL SERVICES, AND
COMMUNITY RISK REDUCTION MASTER PLAN

SITE EVALUATION/SELECTION

[PRIORITY A/B—As shown below] Participate in site evaluation/selection for the
following new-additional fire stations:

- [B] Station 36 – “Shady Grove” – in the vicinity of Shady Grove and Frederick Roads

MCFRS
COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Possible Future Fire Station 37

2016-2022 FIRE, RESCUE, EMERGENCY MEDICAL SERVICES, AND
COMMUNITY RISK REDUCTION MASTER PLAN

SITE EVALUATION/SELECTION

[PRIORITY A/B—As shown below] Participate in site evaluation/selection for the
following new-additional fire stations:

- [B] Station 37 – “East County” – in the vicinity of Columbia Pike and Tech Road

MCFRS
COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Possible Future Fire Station 38

2016-2022 FIRE, RESCUE, EMERGENCY MEDICAL SERVICES, AND
COMMUNITY RISK REDUCTION MASTER PLAN

SITE EVALUATION/SELECTION

[PRIORITY A/B–As shown below] Participate in site evaluation/selection for the
following new-additional fire stations:

- [B] Station 38 – “Norbeck” – along the Norbeck Road corridor at a site to be
determined

MCFRS
COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Possible Future Fire Station 39

2016-2022 FIRE, RESCUE, EMERGENCY MEDICAL SERVICES, AND
COMMUNITY RISK REDUCTION MASTER PLAN

SITE EVALUATION/SELECTION

[PRIORITY A/B—As shown below] Participate in site evaluation/selection for the
following new-additional fire stations:

- [A] Station 39 – “Montgomery Village” – in the vicinity of Goshen Road and Rothbury Drive.

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 40

Battalion 4

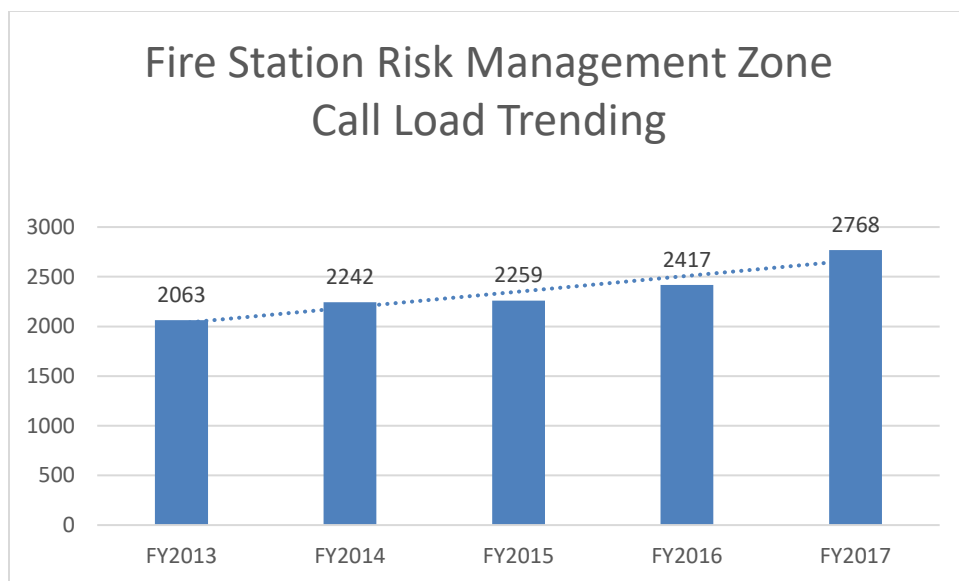
Sandy Spring Station

16911 Georgia Avenue, Olney



Description

- Ownership: Volunteer
- Apparatus Housed: Paramedic Engine, Aerial Tower, Ambulance, Brush Truck, ATV, Boat
- First Due Area: 16.79 mi²
- Number of Unique Risk Management Zones (box areas): 27
- Predominant Population Density Zone: Suburban



MCFRS

COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Fire Station 40 (Suburban Density Zone) Fiscal Year Response Area: Number of DISPATCHED ¹ Incidents Aggregated by Accreditation Program							
Accreditation Program	Risk	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS1	MR	671	637	716	748	843	
ALS2	HR	113	129	122	142	141	
BLS	LR	761	884	877	1019	1155	
Fire Full Assignment Hydranted	HR	28	30	13	17	19	
FFA-Highrise (FFA-SRHR)	SR	N/A	N/A	N/A	0	0	
FFA-Non-hydranted Area	SR	0	1	0	1	0	
Adaptive-1F	LR	49	62	37	36	59	
Adaptive-1N	LR	220	227	212	205	252	
Adaptive-2-3	MR	31	55	53	52	65	
Hazmat Low Risk ²	LR	0	1	1	0	0	
Hazmat Moderate Risk	MR	0	0	1	0	4	
Hazmat High Risk	HR	0	2	2	0	0	
Hazmat Special Risk	SR	1	2	0	1	1	
Technical Rescue	SR	0	0	0	0	0	
Water/Ice Rescue Moderate	MR	0	2	4	1	5	
Water/Ice Rescue High	HR	0	0	0	0	0	
Water/Ice Rescue Special	SR	0	0	0	0	0	
ARFF High Risk	HR	0	0	0	0	0	
ARFF Special Risk	SR	0	0	0	0	0	
Bomb Squad Moderate Risk	MR						
Bomb Squad High Risk	HR						
Bomb Squad Special Risk	SR						
Bomb Squad TOTAL		10	7	7	17	13	
Non-Accreditation Counts							
Service Call ³		179	203	214	178	211	
Total Incident Counts							
		2063	2242	2259	2417	2768	0
Total Aggregated by Overarching Program Area		FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
ALS		784	766	838	890	984	0
BLS		761	884	877	1019	1155	0
Fire Full Assignment		28	31	13	18	19	0
Adaptive ⁴		300	344	302	293	376	0
Hazmat ⁵		1	5	4	1	5	0
Technical Rescue		0	0	4	1	5	0
Water/Ice Rescue		0	2	4	1	5	0
Aircraft Rescue Firefighting		0	0	0	0	0	0
Bomb Squad Responses		10	7	7	17	13	0

¹ Dispatched incident totals offer a way of analyzing overall system demand by Station Response Area

² Hazmat low risk (LR) incidents are counted but not measured

³ Service calls also include BLS routine and occasional ALS emergency interfacility transports

Note: Adaptive responses now include inside and outside natural gas/LPG leaks, except high pressure 2" or > which are Hazmat

Note: Hazmat incidents counts no longer include inside and outside gas/LPG leaks except high pressure 2" or >

Note: During FY16 "light smoke conditions" in buildings other than high-rise/high-risk became an Adaptive 2-3 instead of a FFA response

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Rescue Station 1 (MCFRS Station #41)

Battalion 2

Bethesda Chevy Chase Rescue Squad Station

5220 Battery Lane, Bethesda



Description

- Ownership: Volunteer
- Apparatus Housed: Rescue Squad, ALS chase car/unit, 2 ambulances*
- Number of Unique Risk Management Zones (box areas): N/A: RMZs based on the engine company fire station that encompasses the area
- Predominant Population Density Zone: Metropolitan

*BCCRS ambulances can operate as medic units when a paramedic is on board. A minimum of two ambulances are staffed 24/7, with additional ambulances placed in service as volunteer staffing is available.

MCFRS COMMUNITY RISK ANALYSIS AND STANDARDS OF COVER

Rescue Station 2 (MCFRS Station #42)

Battalion 4

Wheaton Volunteer Rescue Squad Station

2400 Arcola Avenue, Wheaton



Description

- Ownership: Volunteer (51%), County (49%)
- Apparatus Housed: Rescue Squad, ALS chase car, 2 ambulances*
- Number of Unique Risk Management Zones (box areas): N/A: RMZs based on the engine company fire station that encompasses the area
- Predominant Population Density Zone: Metropolitan

*WVRS ambulances can operate as medic units when a paramedic is on board. A minimum of two ambulance are staffed 24/7, with additional ambulances placed in service as volunteer staffing is available.